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Design and Test of Prototype Curation Facilities at Fort Drum, New York

The Fort Drum Repository Curation Methodology

by
Laurie Rush

Federal regulations require the U.S. Army to investigate, evaluate, and recover data and material from historic properties that could be affected by Civil Works undertakings. The historic preservation process does not end with the recovery and interpretation of archeological and historical data, but includes long-term curation and management of collections and associated documentation.

This study was commissioned by the Fort Drum Directorate of Public Works (DPW) to help its Environmental Division curate the Fort's extensive archeological collection. The study included a literature review, interviews and consultation, visits to other collections, a survey of the Fort Drum collection, and testing of solutions to curation challenges found at Fort Drum. This study provided the Fort's Natural and Cultural Resources Branch with the technical information to transform a World War II (B-74) barracks building into a curation facility and to develop a collections management plan for the archeological collections at Fort Drum to serve as a model for other federal collections.

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Foreword

This study was conducted for the Directorate of Public Works, Environmental Division, Headquarters, U.S. Army 10th Mountain Division (Light Infantry), Fort Drum under Military Interdepartmental Purchase Request (MIPR) no. 112055313; Work Unit VI3, "Curation Studies at Fort Drum." The technical monitor was David Fuerst, AFZC-EH-E.

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Tri-Services Cultural Resources Research Center

The Tri-Services Cultural Resources Research Center is a research and technical support center that assists the U.S. military services in the stewardship of cultural resources located within Department of Defense (DOD) installations or facilities. The Center, located at USACERL, helps installations manage their cultural resources and comply with Federal, State, and DOD preservation mandates.

Contents

1 Introduction

Background

In the past decade, the U.S. Army Corps of Engineers, the National Park Service, and many other Federal agencies have made outstanding efforts to recover and document cultural resources. However, these efforts have not always been followed by proper curation of the objects collected. Archeological collections in particular have suffered extensively from inadequate storage and curation throughout the United States (Trimble and Meyers 1991).

Army Corps of Engineers Regulation (ER) 1130-2-433, *Storage and Curation of Archeological and Historic Data*, states:

> The Congress and the President, as expressed through various statutes and administrative actions, have declared that the protection and preservation of significant archeological and historic resources is in the broad public interest. In carrying out the provisions of law and policy the Corps investigates, evaluates, and recovers data and material from historic properties that could be affected as a result of Civil Works undertakings. The historic preservation process does not conclude with the recovery and interpretation of archeological and historical data, but includes long-term curation and management of collections and associated documentation. Unless collections are accessible for scientific research and other appropriate uses, the resources themselves have not been properly managed.*

The curation regulations in 36 CFR 79, *The Curation of Federally Owned Artifact Collections*, were also written in recognition of the fact that, in the long run, it costs much less to care for collections properly from the time of acquisition than it does to mitigate damage to collections that have been subjected to the elements, environmental extremes, and pest invasion. In other words, without proper curation, millions of dollars already invested in archeological research will be wasted, and the collections, artifacts, and associated records will be irretrievably lost to future generations.

*Appendix A contains a definition of "associated records."

This study was commissioned by Fort Drum to help its Environmental Division meet the challenge of curating Fort Drum's extensive archeological collections. Archeological survey and mitigation required for expansion of the post beginning in 1985 have left Fort Drum with approximately 1000 boxes of artifacts that must be curated in compliance with 36 CFR 79. The available space to store these objects and records consisted of World War II (B-74) Barracks Buildings, which required extensive retrofitting to become suitable areas for curation activity.

At Fort Drum, the responsibilities for historic preservation fall within the Environmental Division of the Directorate of Engineering and Housing. Development of the Historic Preservation Plan for the Fort is the responsibility of the Cultural Resource Section of the Natural and Cultural Resource Branch of the Environmental Division, and at Fort Drum, the Fort Archeologist is responsible for all historic preservation activities.

A draft Historic Preservation Plan (HPP) has been in place for the Fort since 1989; the process of revising and updating the Plan began in 1994. The Curation Methodology, essentially the management plan for the Fort Drum Artifact Curation Facility, will be a part of the official HPP on its completion.

Fort Drum in northern New York State has been given an opportunity to professionally manage its collections. Beginning in 1985, expansion of the military facility at Fort Drum to accommodate the stationing of the 10th Mountain Division (Light Infantry) necessitated extensive cultural resource survey work and archeological excavations to clear areas for construction and training activity. It quickly became clear that the resulting collections of artifacts would most cost effectively be curated at Fort Drum rather than by a civilian contractor.

In 1985, the firm of Louis Berger & Associates (LBA) was awarded contracts through the National Park Service to begin the necessary survey and excavation work. By 1991 these activities had resulted in approximately 1000 boxes of artifacts and associated records that required curation at Fort Drum. During the latter part of the same period, the Fort Drum archeologist was putting together an Historic Preservation Plan, which included establishment of an artifact curation facility in compliance with 36 CFR 79 as one of its priorities.

With arrival of the artifacts imminent, the Fort Drum Archeologist was able to secure designation of the Fort Drum Curation Facility as a prototype facility for the U.S. Army Corps of Engineers. A similar facility was created at Fort Polk, LA at the same time. Both curation facilities used B-74 designed World War II barracks buildings. Renovations to these buildings created insulated storage and curation work spaces

with the potential for control over temperature and humidity. Although each Army installation will need to address its own curation needs, the prototypes are intended to provide cost effective models for compliance that can be readily applied to a wide variety of collections and storage facilities.

The Fort Drum Artifact Curation Facility (ACF) Prototype is important because it combines goals of artifact preservation and conservation with preservation and adaptation of existing usable structures. Successful retrofitting of B-74 buildings has the potential for providing efficient, low cost artifact storage space throughout the various service branches. Use of buildings already present on military bases also keeps local collections within their regions, making them available for researchers and interested members of the surrounding communities.

It is also helpful for artifacts, site records, and cultural resource reports to be curated and readily available to the post archeologist or cultural resource manager (CRM). Construction projects, military training activities, and timber harvest sales all require cultural resource clearances. Access to this information enables the CRM to supplement Geographic Information System (GIS) models in reviewing project proposals, in suggesting locations that will have a low impact on cultural resources, and in projecting where further cultural resources are likely to be located.

In addition, a post archeologist will do field work annually in the process of clearing projects and plans for area development. On-site curation also is a cost-effective way to curate artifacts and records generated by ongoing cultural resource research on post.

Objectives

The objectives of this research were to provide the Environmental Division's Natural Cultural Resources Branch at Fort Drum with the technical information required to transform the barracks building into a curation facility and to develop a collections management plan for the archeological collections at Fort Drum that may also serve as a model for other federal collections. This document will be useful to any federal installations where individuals without extensive training, experience, or education in care of artifacts are given curation responsibilities. Since few published resources contain information on all aspects of running a curation facility, this publication should provide a valuable reference to any installation holding artifact collections.

More specifically, the curation studies project goals were to establish a curation methodology for operating the facility, to implement a computerized collections

management system, to present the written results of the curation research that will help in operation of the facility, and that will serve as a model for other facilities that must also establish collections management systems.

Approach

The study objectives were achieved through a combination of literature review, interviews and consultation, visits to collections, survey of the Fort Drum collection, and testing of solutions to curation challenges found at Fort Drum. There were three areas of need identified in terms of technical advice required for setting up and successfully managing a curation facility:

1. An administrative structure was required for holding and managing the collection.

2. An efficient tracking system for artifacts and records was needed, and in this case, the optimal system would be computerized (Appendixes B and C).

3. Guidelines had to be created for handling and storing artifacts (Appendix D).

Successful managers of archeological collections like the New York State Museum and the Illinois State Museum were interviewed about storage environments, records keeping, and computerized data base collections management. The Canadian Heritage Information Network, one of the most successful structures in existence for sharing collections information between museums, was contacted to gain information on setting up a computerized collections management system that could interface with other systems or networks, and on artifact conservation.

2 Fort Drum Artifact Collection

Fort Drum Artifact Curation Facility Mission Statement

The primary purpose of the Fort Drum Curation Facility is to support the training mission of the 10th Mountain Division stationed at Fort Drum by completing required cultural resource survey activities to clear areas of the Fort for construction and training. Cultural resource surveys are designed to prevent loss due to inadvertent damage to cultural resources. The Repository staff supports cultural resource survey efforts and works to preserve collections of artifacts resulting from archeological excavations as well as from collecting activities related to prehistoric and historic occupation on Fort Drum. All curation activities will be in compliance with 36 CFR 79, the Native American Graves Protection and Repatriation Act (NAGPRA), the Archeological Resources Protection Act (ARPA), and various Army historic preservation regulations. These activities will be part of the Historic Preservation Plan for Fort Drum and will be coordinated with the State Historic Preservation Office (SHPO) through a programmatic agreement. From time to time, the curation facility staff may be required to mount small exhibitions or provide educational programs.

As a prototype facility, the Fort Drum Curation Facility also has a responsibility to teach by example, to provide information and consultation to other facilities and agencies, and to actively share progress with the museum community, the Army, and other federal agencies.

As outlined in the Army Corps of Engineers Regulations, ER 1130-2-438, the Fort Drum Curation Facility will strive to:

1. Provide resource managers with a complete inventory of significant historic properties to be managed

2. Reduce land use conflicts

3. Eliminate the need to examine, on a case-by-case basis, each individual land parcel to be affected by a management activity or agency undertaking

4. Provide data needed for preparation of Historic Properties Management Plans, Master and Operational Management Plans, and other management documents

5. Provide basic data needed for evaluations of archeological and other research proposals

6. Provide current data on culturally and historically related research topics to prevent redundancy in future project planning activities.

The purpose of the Fort Drum ACF is to collect and preserve artifacts and documentation related to the prehistoric and historic human occupation of the Fort Drum Military Reservation.

Scope of Collections

Background

As the Department of Defense (DOD) begins to implement curation plans throughout all branches of the service, it will be extremely important to facilitate definition of collection responsibilities for its component agencies. Each collecting agency within the DOD should have a clear collections statement specifically defining the categories of objects for which it will be responsible. Collections and curation responsibilities should be coordinated within the DOD so that each collecting or curation unit clearly understands its responsibilities in relation to the others. In addition, the scope of collections statement should make clear that a DOD repository will not accept objects or collections for which it cannot provide an adequate standard of curation. There should be an administrative structure in place for assuring that collections within the care of the DOD receive a consistent standard of care nationwide (Pearce 1990, 80-83).

Fort Drum Artifact Curation Facility Collections Statement

It is the purpose of the Fort Drum ACF to collect and preserve artifacts and documentation related to the prehistoric and historic human occupation of the Fort Drum Military Reservation. In addition, the Fort Drum Curation Facility will accept artifacts and archives from Reserve Centers in the region, may consider curation contracts with other military installations in the northeast, and loans of appropriate material to Fort Drum. The Fort Drum Curation Facility is distinct from any unit history museum, and will not accept unit history collections. The Fort Drum Curation Facility will accept only artifacts, archives, and collections for which it can provide high standards of curation.

Brief Description of the Fort Drum Collections

The current holdings of the Fort Drum Curation Facility represent a series of related collections that primarily consist of prehistoric and historic archeological specimens excavated by Louis Berger & Associates Inc. from 1985-1990 during major construction expansion at Fort Drum. Other collections include the LeRay Mansion and its associated artifacts, smaller collections related to the prehistory and history of Fort Drum, archeological collections excavated by SUNY Oswego in the 1960s and Envirosphere in 1985, records concerning historic sites still remaining on the grounds of the Fort, and records associated with all of the above collections (Appendix A), including literature generated by the Berger work.

The Berger collection of nineteenth century farmstead material at Fort Drum is possibly unparalleled in North America. This collection represents the vast majority of artifacts to be housed in the Fort Drum Curation Facility with approximately 1000 boxes of artifacts and 500 linear feet of maps and records. These collections include ceramics, glass, faunal material, metals, wood lithics, leather, and unprocessed flotation samples. The artifacts are in overall good condition.

Before placement in permanent storage, each box will need to be reviewed, some of the artifacts supplied with new packing materials, metal objects enclosed in dry micro-environments, and all artifacts accessioned into the curation facility tracking system. There are a few problems where the contractor had difficulty boxing oversized objects, where groups of artifacts have not been sufficiently processed to warrant placement in storage, and where the contractor stored and cataloged unlike objects together. It is in the best interest of the artifacts to have the curatorial staff take responsibility for remediation of curation problems discovered when objects come into a curation facility.

Berger's archeological survey and excavations at two St. Lawrence Iroquois village sites and several lithics scatters generated a relatively small number of prehistoric artifacts. Although human remains were discovered, none were excavated, and none of the artifacts appear to represent sacred objects as defined in the regulations for NAGPRA.

The Fort Drum Archeologist is also responsible for reviewing actions affecting LeRay mansion, an historic mansion and outbuildings listed on the National Register and situated on the grounds of the military reservation. In addition to concerns for artifact storage and preservation within the repository, any curation methodology for Fort Drum must address planning, policy and procedures for preservation of the LeRay Mansion and its associated artifacts. In addition, the Fort Drum archeologist has been

charged with developing a utilization policy for the Mansion to increase public and official access to the structure.

The LeRay Mansion, one of the most important historic structures in northern New York, is a stone neoclassical structure originally built between 1827 and 1830. Its builders, members of the French noble family LeRay de Chaumont, contributed much of their fortune to the patriots during the American Revolution and later invested heavily in the development of northern New York (Schaeper 1993). Until 1836, the Mansion provided the setting for visits to the North Country from statesmen, farmers, politicians, and exiled French royalty. The LeRay home provided a setting for these people to transact business and make plans of significance for the region. James LeRay, the Mansion's builder and "Father of the North Country," also intended for the mansion property to serve as a model farm for settlers to the area, and founded the New York Agricultural Society. The Fort Drum archeological collections include materials from the Mansion grounds, the area of the original barn, and even bottles from the LeRay's wine collection.

A current historic preservation goal is to furnish the mansion with historically appropriate furniture, and wall and floor covering. In November of 1992, Fort Drum acquired a series of original porcelain and china pieces from the LeRay family's mansion table service. Two of the plates even bear the worn monogram, "TC," of Therese de Chaumont de Gouvello, the daughter of James LeRay. It is possible that ceramic fragments found in the mansion excavations will match pieces from the table service. The staff recognizes that eventual acquisition of additional artifacts and archival material related to the LeRay family's activities in the North Country would make it possible to provide more meaningful interpretation of the Mansion for its military and civilian visitors.

Previous excavations at Fort Drum have also generated archeological collections that require curation. The first of these investigations took place in the late 1960s and were conducted at the Camp Drum #1 St. Lawrence Iroquois village site by Dr. Peter Pratt and students from the State University of New York College at Oswego. These artifacts require inventory, identification, and archival packing before they can be placed in permanent storage.

During a cultural resource survey in the early 1980s, Atlantic Testing Services, Inc. excavated the Scott Farm site. Evaluation of the research value of this collection is required before it is officially accessioned. In 1985, Envirosphere Inc. surveyed a sample of potentially significant archeological sites in selected locations on the Fort grounds. These activities generated a small collection of approximately 50 boxes of artifacts representing mostly nineteenth and early twentieth century farmstead

materials but also some examples of prehistoric pottery and lithics. This collection is currently curated by the National Park Service.

The presence of hundreds of prehistoric and historic sites throughout the acreage encompassed by Fort Drum poses a challenging curation problem. The Berger survey began in August of 1985 and covered a total of 11,189 acres in the new cantonment and various training areas, two borrow areas, one sanitary landfill, 46 miles of range road, and one timber tract scheduled for sale. A total of 445 archeological sites were identified including two prehistoric Native American villages, seven prehistoric artifact scatters, 217 farmsteads, five villages, two cemeteries, one rural church, four rural schools, three rural trash dumps, and one lime kiln (LBA 1992, p 1-8).

As part of the Fort Drum long range and historic preservation plans, in the summer of 1992 there were additional cultural resource surveys throughout tracts of timber scheduled for sale in the vicinity of the village of Alpina in the southeast corner of the military reservation. These activities located additional sites and generated additional artifacts. As long as the military continues to expand its use and management of the reservation acreage, similar activities will cause the repository collections of prehistoric material to grow on an annual basis. It is currently estimated that the current holdings will require less than half of the available storage space in the Curation Facility, leaving generous amounts of space for additional artifacts and records. Using the artifact collections from the 1992 and 1993 summer seasons as an example, the facility should be able to handle artifacts generated by future excavation activity at Fort Drum, which is almost exclusively prehistoric at this point, for several decades.

In addition to the artifacts, the Fort Drum Curation Facility will be responsible for curation of the approximately 500 linear feet of associated records, documents, photographs, and paper artifacts. All of the artifact and site records for the Berger collection are in good condition and the artifacts have already been entered into an automated catalog using RBaseV®. The site photographs will require research and processing before they can be cataloged and stored with the site records.

3 Collections Management: Policies and Procedures

Introduction

The policies and procedures outlined here should establish a consistent curation methodology for the Fort Drum Curation Facility. This information follows an operations manual format. Any repository employee should be able to immediately, easily, and consistently follow outlined procedures when handling artifacts. It is important to present the governing policies along with the procedures so that curation facility staff understand the principles and reasoning governing the way their tasks should be performed. In addition, understanding the policies enables staff at other curation facilities to continue to follow the policies while modifying procedures as appropriate for their circumstances and collections. Consistent application of these policies and procedures will be ensured through regular staff training and use of the document in day-to-day operation of the facility.

Administrative Policies—Governing Document

The Fort Drum Artifact Curation Facility (ACF) was established in 1991 as a functional responsibility of the Fort Drum Environmental Division. It operates in compliance with all applicable state and federal regulations, most notably 36 CFR Part 79 (Curation of Federally-Owned and Administered Archeological Collections) as well as all corresponding Army regulations and guidelines (Appendix E).

Financial Administration

The budget process for this facility will follow Fort Drum Budget Directorate of Engineering and Housing (DEH)* Division and Environmental Division procedures. As outlined in the Curation Methodology, the facility's financial needs will be determined by projections of archeological activity required for construction and

*Army DEHs are now called Directorates of Public Works (DPWs).

development of training areas, by projections of artifact processing needs based on registration statistics and conservation review, and by monitoring routine facility operation requirements.

Personnel

The overall supervision of the Fort Drum ACF personnel and operations comes under DEH—Environmental Division, Chief. The Fort Drum Archeologist is responsible for operation of the ACF. Additional personnel could include but would not be limited to museum studies interns, volunteers, and temporary archeological field survey crews.

Volunteer Policy

Repository staff will encourage volunteerism when possible and will coordinate volunteer activity with the Installation Volunteer Coordinator. It is recommended that any curation facility work closely with the volunteer coordinator of the associated federal installation in recruiting, interviewing, selecting, and documenting volunteers. It is hoped that military personnel and their dependents will take an interest in the Curation Facility and its activities. All personnel policies and procedures will be determined by the appropriate federal regulations governing management of volunteer federal employees. All interns, volunteers, and field personnel will be closely supervised by qualified staff members.

Activities involving use of volunteers at Fort Drum will follow the guidelines set in Museum's and Historical Artifacts, Army Regulation (AR) 870-20 Section 3-9 Part 27e, pp 1-7. The Environmental Division will designate a staff member to be responsible for supervising volunteers. The volunteer supervisor will be responsible for training and evaluation of volunteer work performance. The supervisor will also be responsible for providing opportunities for the volunteers to improve their skills and understanding of the work. The Fort Archeologist may provide written approval for selected volunteers to work with artifacts given the educational background and character of the individuals (Appendix F).

Code of Ethics

The Fort Drum ACF will use the Code of Ethics adopted by the American Association of Museums and the United States Army Code of Conduct as guidelines for decisionmaking and appropriate behavior, specifically:

1. The Fort Drum Environmental Division will ensure that all who work on behalf of the Fort Drum ACF will understand and support its mission and public trust responsibilities.

2. Professional standards and practices will inform and guide curation facility operations.

3. Policies will be articulated and prudent oversight is practiced.

4. The collections in the custody of the Fort Drum ACF support its mission, shall fall within the scope of collections, and support its public trust responsibilities.

5. The collections in the custody of the Fort Drum ACF shall be protected, secure, unencumbered, cared for, and preserved.

6. The collections in the custody of the Fort Drum ACF shall be accounted for and documented.

7. Access to the collections and related information shall be permitted and regulated.

8. Acquisition, disposal, and loan activities shall be conducted in a manner that respects the protection and preservation of natural and cultural resources and discourages illicit trade in such materials.

9. Acquisition, disposal, and loan activities shall conform to the mission of the Fort Drum ACF and its public trust responsibilities.

10. The unique and special nature of human remains and funerary sacred objects shall be recognized as the basis for all decisions concerning such collections.

11. Collections-related activities shall promote the public good rather than individual financial gains.

12. Curation facility staff members may acquire, collect, and own materials of a nature similar to those collected at the facility within the confines of state and federal law. However, all artifacts found on Fort Drum or within the boundaries of its real property assets must be turned over to the Fort Drum Archeologist for documentation and curation at the facility.

13. Staff members and volunteers must disclose their personal collecting activities to the Fort Drum Archeologist.

14. At no time may any employee or volunteer associated with the LeRay Mansion or the Fort Drum ACF acquire an object deaccessioned from Fort Drum Collections for any reason.

15. Written material or collections documentation created by staff members while employed by or on contract to Fort Drum or the United States Army is the property of the U.S. Army.

16. It is the responsibility of the staff and administration of the Fort Drum Environmental Division to ensure that collections management at the Curation Facility follows the highest museum standards for artifact curation and conservation.

Risk Management

Risks to the collection must be assessed in terms of internal risks such as employee practices, dishonesty, and incompetence, and external risks like theft and natural disasters. Internal risks will be addressed through sound personnel policy, volunteer management, and periodic evaluation of collections management practices. External risks are anticipated and mitigated by placement and/or selection of the building, consideration of geographic and climatic hazards in the Fort Drum area, awareness of risks and conservation issues in the renovation and construction of the building, establishment of security systems, disaster planning, limitation and documentation of access, and sound collection use policies. Collections use and potential external threats to the collection will be periodically reviewed at the Fort Drum ACF by the Fort Drum Archeologist.

Disaster Planning

Curation facilities should have written disaster plans in place that specify staff procedures in the event of disaster, damage, loss, or physical injury. Effective disaster plans are designed in cooperation with installation fire and safety personnel. A model for the Fort Drum ACF Disaster Plan is found in Appendix G.

The Disaster Plans and Procedures will be contained in highly visible red notebooks located on the first and second floors of the Curation Facility, in the Environmental

Division offices, and at the Fire Station. Staff will receive periodic training in disaster procedures, and the Disaster Plan notebooks will be kept up to date.

Health and Safety

The Fort Drum ACF will be operated in compliance with all federal regulations concerning health and safety in work environments for employees of the federal government. There will be a first aid box on the premises. The consulting conservator will also be responsible for monitoring and advising on matters of occupational health and safety for repository staff. The conservator is the appropriate choice for this responsibility because conservation training includes evaluation of museum environments for safety of both artifacts and people. Conservators are also well informed about the chemistry and characteristics of substances used in artifact processing.

The use of hazardous materials will be kept to a minimum within the facility. The Curation Facility's policy of leaving artifact conservation treatments to professional conservators means that there will be little need to use toxic or dangerous substances for object processing. Any potentially reactive substance like Polyvinyl Acetate (which is used in routine curation) will have a Material Safety Data Sheet on file in the facility.

Curation Contracts

In cases where objects or collections belonging to the Fort Drum ACF require outside curation, the curation contracts shall be in compliance with Federal Regulation 36 CFR 79 and associated Army Corps of Engineers Guidelines.

If the Fort Drum ACF accepts objects or collections for curation from other facilities, all curation contracts will be in compliance with 36 CFR 79 and associated Federal and Corps guidelines.

Annual Reports

The Collections Manager will supply the Fort Drum Environmental Division with an annual report for the Fort Drum ACF. This report will cover:

1. Any changes made to the curation facility

2. Any changes, additions, or alterations of the material remains or associated records including loans

3. Accessions in cubic feet, types of artifacts and documents accessioned, and linear feet of records associated with accessions

4. A summary of access to the collections in the previous year

5. Citations of any reports, exhibitions, educational or interpretive programs, manuscripts, theses, or dissertations resulting from use of the collections

6. Projections for curatorial activity in the coming year

7. Needs of the curation facility

8. Goals for the curation facility and what support will be required to achieve those goals.

9. If needed, a full-catalog printout may be included in the annual report.

Treasure Hunting Policy

The Fort Drum Archeologist periodically receives inquiries from individuals who are interested in bottle collecting, treasure hunting with metal detectors, or in looking for prehistoric material on post. Occasionally personnel also contact the archeologist when they have found cultural materials like projectile points or other artifacts. Systematic treasure hunting is prohibited by law on federal property, and the Fort Drum Archeologist discourages these activities. It is also the archeologist's responsibility to provide training to military and civilian personnel on post to respect and avoid cultural resources in the field.

A punitive or dictatorial approach toward individuals who have reported their finds to the Environmental Division would be counterproductive. Therefore, it is the policy at Fort Drum to document the discovery in as much detail as possible and to politely discourage any further treasure hunting on post.

Library Background

Just as a museum director and staff must be acquainted with and have access to the literature of the museum profession (AR 870-20, 3-12), archeology curation personnel also need ready access to the literature of the archeological curation and museum conservation professions. A curation facility should also encourage curation facility staff to maintain memberships in professional organizations and to attend professional meetings, conferences, workshops, and training sessions whenever possible.

Fort Drum ACF Library Policy

The Fort Drum ACF library will contain relevant books on local and regional history, artifact conservation, collections management, CRM reports, and subscriptions to appropriate journals, periodicals, technical bulletins, and government publications.

4 Policies and Procedures for Tracking Artifacts and Documents

Background

Each artifact curation facility needs to develop a simple, straightforward system that works efficiently for its unique collections. Elements of basic information must be provided for all artifacts and records, but the format of an efficient computer system will depend on a series of varying factors, including but not limited to:

1. Computer hardware
2. Computer software
3. Information about the artifacts and records
4. Information structure used by the excavating archeologist
5. Staff skills.

Expectations for what the computerized system will provide in terms of reports, tracking information, and interface with other systems are also considerations in setting up automated collections management (Appendixes B and C).

Collections Cataloging

Cataloging Policy

Items entering the Fort Drum ACF not already cataloged by a contractor will be given a catalog number. Cataloging is both a research and a collections management tool. However, since collections management is a greater priority than research at Fort Drum, written object descriptions will take the place of numerical codes in the computer memo fields in the accession file. Whenever possible, nomenclature, typology, condition categories, and descriptors will rely on the following sources:

Blackaby, James R., and Patricia Greeno, *The Revised Nomenclature for Museum Cataloging* (The AASLH Press, 1988).

Dudley, Dorothy H., et al., *Museum Registration Methods* (The American Association of Museums, 1979), pp 240-244 (Inspecting and describing the condition of art objects), pp 268-279, and Appendix B (Describing the object).

Louis Berger & Associates, *The Cultural Resources of Fort Drum, Introduction to the Program and Synthesis of Principal Findings* (1993), Appendix B (Typology and codes used for Fort Drum materials).

National Park Service, *Museum Handbook, Part II* (The Government Printing Office, 1984).

Appendixes H and I to this report provide information on describing and naming archival objects, and describing their condition. Where listed sources prove inadequate, further information is available through the resource organizations listed in Appendix J to this report.

Catalog Number Assignments

Any catalog number that has already been assigned will also be used by the Fort Drum ACF. In the case of loans, the catalog or accession number* assigned by the lending institution will be used as the Fort Drum ACF catalog number. If a new number needs to be assigned, it will be determined using the following format.

The first entry for the catalog number is a source code. This code will be the archeological site number for archeological materials and for other objects, brief cultural context identification. For example, objects directly related to the LeRay Mansion will begin their catalog number with "LRY." The second entry is the accession number for nonarcheological artifacts or provenience catalog number in the case of archeological materials. Objects where the component parts differ from each other should be entered separately in the catalog file. For example a coffeepot and cover accessioned together as 1994.4.10a-b should be cataloged separately, while a group of glass fragments or identical crystal goblets can be cataloged together as long as the number of objects within the group is clearly recorded using the alphanumerics. Site records and other archival materials will use a separate archival cataloging system based on Trimble and Meyers (1991) and this system will be described below.

In the case of artifacts recovered by Louis Berger & Associates, multiple artifacts sharing a provenience have been assigned the same catalog number. When these

*The accession number is the index variable connecting the catalog file to the accession file.

objects are entered in the Fort Drum ACF system, they will be assigned an additional identification number to give them a unique position within the group.

Archeologists often have their own cataloging systems that complement their field recordkeeping techniques. However, the Fort Drum ACF has already been asked for advice on cataloging artifacts efficiently in the field. The principle followed at Fort Drum is to suggest catalog numbers that begin with the site number working from largest to smallest location increment down to the artifact bag catalog number, for example: site number.transect number.shovel test number.catalog number. These increments then would vary according to the type of excavation.

If the object is intended for accession, the catalog number is marked directly on the object. If not, the number on a label is enclosed with the object in its storage container or is attached in some way that will not harm or compromise the integrity of the object. Each artifact box will have a clear invoice label holder that will protect the box label (ER 1130-2-433, 1991).

Cataloging Documentation

When an item is cataloged, the following information will be collected and entered into the Curation Facility catalog data file:

- Accession Number
- Catalog Number
- Object Identification
- Medium or Material Class Type
- Maker or Cultural Affiliation
- Earliest Possible Date
- Latest Possible Date
- Length (cm)
- Width (cm)
- Height (cm)
- References Memo—to include catalog numbers of any associated field notes, maps, site records, photographs, and/or associated references
- Grid
- Horizontal Provenience
- Depth From (Vertical Provenience)
- Stratum
- Feature

- Date of Excavation
- Initials of the Cataloger.

Further Explanation of the Computerized Catalog File

This file is set up in FOXPRO® 2.5 at the curation facility workstation. The file name is OBJCAT.DBF.

Accession Number is entered in a character field. The procedure for assigning an accession number is described in detail below.

Catalog Number is also entered in a character field, and assignment is described in detail above.

Object identification needs to be done in one or two words at the most. The nomenclature reference will be useful here.

Material provides an opportunity to identify the class of materials from which the object is made—ceramics, pottery, glass, brick, various metals, stone, bone, horn, antler, ivory, flora derivatives, leather, textile, shell, wood, or soil samples.

Maker, artist, artisan, factory if known, if not cultural—prehistoric Hopewell, for example.

Earliest possible and latest possible dates—entered into date codes if known.

Dimension measurements in centimeters.

References will be entered in a memo field using their assigned catalog numbers; see also paper cataloging procedures. This memo field will tie the artifacts to the associated paper records.

Grid—grid number or square within which the artifact was found.

Exact Provenience—location of surface collection unit, excavation unit, or shovel test of the site.

Depth From—depth where the object was found in relation to a designated datum point assigned at the site.

Stratum—if strata were assigned within the site, the strata within which the artifacts were found would be designated here.

Feature—if the artifact were found in association with a specific feature like a hearth, or cistern the feature would be listed.

Date of Excavation—date when the artifact was excavated would be entered from the field notes or the field tag into this date field.

Initials of the Cataloger, three characters.

With respect to cataloging, it should be noted that the artifacts supplied by Louis Berger & Associates have already been cataloged in files set up in RBaseV®. Whenever possible, the Fort Drum ACF will respect and use catalogs previously set up for component collections. In cases where items are already cataloged, artifacts will be assigned accession or registration numbers when entering the Fort Drum collections management system and accession files will be set up. In addition, accession numbers will be added to pre-existing catalog files for indexing and cross-referencing purposes. The site records associated with the Berger collections will require archival cataloging using the system described below.

Archival Cataloging—Paper Objects, Site Records

Background

Archival cataloging systems are designed to let the curator or archivist develop organizational systems and finding simple aids that make sense for a specific kind of archival collection. The strength of archival cataloging strategy is that it allows for the flexibility needed to develop a catalog that is optimal for a specific collection. Within that flexibility, though, it is important that the system be clear and consistent. In archeological collections, it usually makes the most sense to consistently use the archeological site as a basic organizational component. Records for each site then can be cataloged following the system proposed in Trimble and Meyers (1991, Appendix V), but modified to fit the records system already in place at Fort Drum. Catalog files related to nonarcheological materials will be organized by cultural context.

Archival Cataloging System—Description

Once the archeological sites are defined, the records are broken down into a series of kinds of documents, and the documents within those categories are arranged by folder.

Note that folders are numbered consecutively beginning with each different type of record so that for example Background records would have County Deeds (folders 1 to 5), Oral Histories (folders 1 to 20), and Reference Publications (folders 1 to 3).

1. Administrative records—contracts, correspondence, reports, financial records, personnel records, property and equipment records.

2. Background records—government documents, land ownership and settlement records, oral histories, genealogical records, census data, and reference publications.

3. Survey records—site survey sheets, historic structures inventory sheets, aerial photographs, field journals and catalogs, site maps, bag lists, transit records, other survey records.

4. Archeological Project Excavation and Analysis Records—excavation sheets, plan and profile maps, site maps, field journals and catalogs, bag lists, transit records, grid sheets, and other excavation records; catalogs, analysis sheets, lists, tables, maps, electronic media, printouts, notes, and other analysis records. These records would be organized by site number and divided by type of record. All excavation records will be stored together with the exception of oversized maps and drawings, electronic media, and some photographs. However, existence of special materials stored elsewhere will be noted with the major portion of the archive.

5. Archeological Project Photographic Records—photo logs, proof sheets, black and white prints, color prints, negatives, and slides. Whenever possible, storing photographic records from the field with the excavation and analysis records is more efficient for people using the collections. Undersized photographic materials should be stored in subdivided 8-1/2 x 11-in.* polyethylene enclosures so that all vertically filed materials stored with them can remain flat. For photographs taken at Fort Drum, duplicate negatives are kept at the Fort Drum photographic processing center. Finding aid information for accessing these negatives will be kept with the other photographic records.

6. Report Records—drawings, figures, tables, plates, report drafts, and reports, organized by project topic and divided by type of report.

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*1 in. = 25.4 mm; 1 ft = 0.305 m; 1 sq ft = 0.093 m^2; °F = (°C x 1.8) + 32.

Archival Documentation

Archival cataloging information will be stored in the archival catalog computer file set up in FOXPRO® 2.0 at the Curation Facility. The file name is PAPERCAT.DBF. The variables include:

- New York State Site Number
- Fort Drum Site Number
- Group Number of Artifacts Accessioned from the Site
- Brief Cultural Context Identification
- Folder Type
- Folder Number
- Brief Description of Folder Contents in a Memo Field
- Storage Location
- Initials of the Cataloger

Further Description—Archival Catalog File

Site Number—New York State site registration number or New York State Museum number.

Fort Drum Site Number—Consecutive Fort Drum Historic (FDH) or Fort Drum Prehistoric (FDP) site numbers.

Group Number—Year and chronological number of the group of materials accessioned for that year. This number matches the first two entries of the accession number, and will match those entries for the accession numbers of the artifacts that go with the site records.

File Type—Entry fits the above categories (1-6), "ADM," "BKG," "SUR," "EXC," "ANL," "PHO," and "RPT."

Folder Number— Chronological entry for type of folder, beginning with 001.

Folder Description—Memo field where folder contents, amount, and condition can be described in detail. A brief identification of what the folder contains should be in caps at the beginning of the Memo so that it will appear in any printed reports generated from the catalog. Providing a memo field should prevent a less experienced cataloger from spending excessive time attempting to summarize folder contents in an abbreviated identification field.

Storage Location—Shelf number and location on the shelf of a box of records or location of a file and within the file drawer.

This database is set up so that there is a file entry for each folder.

Accessions

Background

The Collections Statement above is intended to govern decisionmaking concerning the nature of objects to be accessioned into the collections of a specific Curation Facility. In addition to falling into the scope of collections defined above, a series of conditions must be met before an object or series of objects can be effectively accessioned at Fort Drum. Each curation facility must determine their own set of conditions to be met before an object or artifact is accessioned.

Accessions Policy for the Fort Drum Artifact Curation Facility

Before an artifact can be accessioned into the Fort Drum ACF, it must fall within the scope of collections as defined for Fort Drum. In addition, it must meet the conditions outlined below.

1. The artifact is a cultural resource from Fort Drum or its real property assets or is directly related to the history or prehistory of the Fort Drum Military Reservation. Note that the Fort Drum ACF will not accept objects related to the history of the 10th Mountain Division (Light Infantry) that are unrelated to the history of the Fort Drum Military Reservation. AR 420-40, *Facilities Engineering Historic Preservation*, clearly distinguishes the responsibilities of artifact curation facilities from those of unit history museums.

2. The Curation Facility has written proof of ownership of the object. These documents may be the Fort Drum ACF Deed of Gift, The Fort Drum ACF Deed of Purchase, Fort Drum ACF "Found on Post" Record, Excavation Site Records, or Records of Cultural Resource Management Contracts. Forms for the Deed of Gift, Deed of Purchase, and the "Found on Post" Record are found in Appendix K. A paper accession file that includes proof of ownership and the object or objects' accession number(s) will be created for each object or related group of objects.

3. The Curation Facility can maintain the object or group of objects in a stable condition and the Curation Facility can provide a storage environment in compliance with 36 CFR 79 for the object or group of objects.

4. If the capacity of the storage facility is reached, the Curation Facility staff may accession objects when curation contracts and transportation are available for storage and curation of objects in compliance with 36 CFR 79.

The Fort Drum ACF will maintain site files of associated records for all accessioned archeological materials. All accessioned objects will be assigned an accession number and will be entered in the automated accessions file. Storage locations of these objects will be clearly indicated in the accession files.

Accession Procedures

Accession Number Assignment. The accession number is the primary tracking tool for objects once they become part of the curation facility collections management system.

The accession number consists of the following numbers separated by periods ".".

1. The year the object was accessioned using all four digits.

2. The group number of the group being accessioned. This number is assigned by assigning consecutive numbers to the groups of objects being accessioned for that year. There is an additional computer file that references cultural resource site numbers and other sources of material where group number assignments are recorded.

3. The number of the object within the group or provenience designation or catalog number as assigned by an archeological contractor.

4. The number of an object within a series of objects sharing the same catalog number as assigned by an archeological contractor.

5. The lower case alphanumeric designation of a piece of a larger object or a group of related objects.

Accession Documentation. Information to be collected and saved in the automated accession and registration data file includes:

- Accession number
- Date accessioned
- Source of the object
- Project or property where clearance was required
- Brief description of the object, its type and material condition
- Storage or exhibit location
- Initials of cataloger who processed the object
- Ownership of the object.

Note that additional descriptive variables are included in the catalog file and that only the accession number is duplicated between the two files.

Explanation of Accessions Computer File Categories. This file is set up in FoxPro® 2.5 at the ACF workstation; the filename is ACCESSIONS.DBF.

The accession number is explained above.

Date accessioned is set up in a date format and should be the date the object was processed and entered into the file.

The source of the object is a general category with a limited choice of variable entries: Archeological Contracts "CONTRACT," Purchased "PURCHASE," Donated "GIFT," Found on Post "FOP," Loan "LOAN," and Curation Contract "CURCON." Each of these entries will be backed up by the appropriate forms or paperwork in the paper accessions file.

Project refers to the activity that generated the need for an archeological survey or to the specific location on Fort Drum to which the object is directly related. Examples would be the work at LeRay Mansion, the Farmstead names, timber market surveys or specific cultural resources surveys, and the cultural resource surveys of timber harvest or farmsteads during road and cantonment construction.

The object description is set aside in a memo field. It is important that the precise identification of the object be listed first in capital letters. Preferably this identification can be made using the nomenclature reference or using basic archeological artifact terminology. A designated number of characters from the beginning of the memo field can be printed in FOXPRO® reports so listing the artifact identification up front is very useful. This memo should also include a description of the condition of the object.

Storage location should include building designation, floor, shelf number or designation, and location on the shelf.

Staff is three initials, designating the staff member who entered the object into the accessions file. A list of the names and initials will be kept on file in the ACF.

Ownership of the object refers back to accessioned versus registered objects. The official owner of the object is designated here—Fort Drum ACF, the LeRay Mansion Preservation Corporation (LMPC), which is the source of some furniture loans to the mansion, and acronyms or initialisms designating other facilities who may be sending objects on curation contracts.

Registration

Registration Policy

The curation facility staff will systematically track all artifacts that enter the facility whether they are to be accessioned by assigning each artifact a registration number and by entering these numbers along with other specified information into the repository's computerized accession file.

In situations where repository staff accept custody of objects not destined for accession, the owner will be issued a temporary custody receipt that must be signed when the object is returned. An example Temporary Custody Receipt Form is in Appendix L.

Examples of artifacts that would be registered but not accessioned in the Fort Drum ACF would be collections from other Northeast military installations accepted for curation under contract with Fort Drum, objects loaned to Fort Drum for temporary exhibitions, or furniture loaned to the LeRay Mansion.

Registered items will be documented and entered into the Fort Drum ACF collections management system using the accessions computer file.

Registration Procedure—Assignment of the Registration Number

The registration number is the number assigned to the object for tracking as soon as the object enters the repository. The registration number assignment procedure is identical to the accession number procedure except for the fact that each number is preceded by the letters TR, (temporary registration), for example, TR1992.1.3a-c. Registration numbers will continue within the chronological sequence of accession numbering and will be retired when the registered objects leave the facility.

Inventory

Background

Inventory is the ultimate test of the collections management system. Inventory procedures are designed to provide ready proof of accountability in collections management and to identify possible problems with deterioration of collections in storage, numbering, missing objects, missing pieces, and missing information.

Inventory Policy for the Fort Drum Artifact Curation Facility

The collections housed at the Fort Drum ACF will be subject to complete inventory every 5 years. In addition, spot inventories of random samples of artifacts will be conducted on a semi-annual basis. Inventories will also be initiated in response to any problems in locating objects and/or to assess losses in cases of damage to collections or breaches of security.

The Fort Drum Archeologist will be supplied with a written report after each inventory, documenting the status of the collection, problems noted, and plans for remediation and reconciliation.

In the event of discovery of loss, theft, deterioration, damage, or destruction of any object in the collection, the Fort Drum Archeologist will be notified immediately and will be provided with written notification of the circumstances surrounding the loss, theft, deterioration, damage, or destruction.

The collections and curation facility will be available for inspection at any time by federal officials.

Equipment, supplies, and facility furnishings will be inventoried, and qualified curation staff will maintain records to track them. Any failure to locate equipment, supplies, or furnishings will result in inventory of those materials.

Inventory Procedures for Fort Drum

All inventory procedures will be in compliance with the Federal Property and Administrative Services Act (40 U.S.C. 484) and its implementing regulation (41 CFR Part 101). The appropriate federal agency officials will be provided with lists of new acquisitions by the repository, up-to-date inventories, and with detailed inventory reports and recommendations.

The Fort Drum Archeologist and/or curator at the facility will ensure that the periodic inventories are carried out to completion. The designated staff person will begin the inventory by generating an inventory outline using the reporting capability of the curation facility's accession file. Since inventories should be performed using concise information, the inventory report will include only the accession number of the artifact, the object's identification consisting of the initial entry into the Object Identification memo field, and the listed storage location. The report format should include space for the inventory team to record their findings and make notes.

The designated staff person will select individuals to work on the inventory, will closely supervise inventory teams, and will coordinate the training of the teams if inventories are to be carried out by volunteers or nonprofessional employees. Inventory training will include basic instruction on how to handle all artifacts in the repository and on how to identify basic conservation problems. The inventory will be conducted using teams of at least two people surveying the storage areas; one to open boxes, locate items, and read off numbers, the other to check the information against the report from the accessions file and record any discrepancies.

During the inventory process, the team will document the object's number, status, and location checked against the report. Inconsistencies between the information provided on the report and the object found in storage will be investigated and reconciled. Any object found to be deteriorating in storage or insufficiently packed will be remediated immediately if possible, and if not, pulled out of storage for remediation or conservation review. If objects are found to be missing, searches will be initiated immediately and the Fort Drum Archeologist informed. On concluding inventory activities, the inventory team will prepare a written report for the Fort Drum Archeologist and the Environmental Division. This report will emphasize recommendations for prevention of future losses, damage, and deterioration based on inventory results.

In the event of discovery of loss, theft, deterioration, damage, or destruction of any object in the collection, the Fort Drum Archeologist will be notified. Such notification will be written, detailing the circumstances surrounding the loss, theft, deterioration, damage, or destruction.

Deaccessions

Background

Archeologists rarely deaccession objects in their collections. However, from time to time objects are removed from collections for a variety of reasons, and it is necessary

to have procedures for keeping track of these objects. Strong deaccession policies and procedures, especially if they are incorporated as regulations, protect objects from being disposed of in a frivolous manner or without cause. As the deaccession policies and procedures are reviewed, it will quickly become clear that in most cases it is easier to keep and curate an object than it is to deaccession it.

Deaccession Policy for the Fort Drum ACF

The Fort Drum ACF may deaccession an object under the following circumstances:

1. The object is in such an advanced state of deterioration that the curator and consulting conservator agree that there is no point in attempting further preservation and storage of said object.

2. The object meets the criteria set out in NAGPRA and is deaccessioned to the appropriate Native American party. The object must be requested by a recognized representative of the appropriate Native American tribe and all steps of the repatriation process completed as required by law.

3. After extensive study and documentation, it is determined that a number of similar objects may be represented by one object.

4. The object has been destroyed during an analytical research process, for example, Carbon 14 or neutron activation dating.

5. After study and documentation, it is determined that the object does not fit the collections criteria of the Fort Drum ACF as stated in the Scope of Collections Statement.

6. If items are stolen or lost.

The Fort Drum ACF will maintain detailed and careful documentation as well as object histories for all objects in the repository collection including those scheduled for deaccession. If it is more cost effective to keep the object than to provide the necessary deaccession documentation and records, the object will not be deaccessioned.

The accession number for any object deaccessioned for any reason will be retired from use. Any further reference to a deaccessioned object or its documentation will add the prefix and suffix of X to the accession number of the object. For example, the accession number of five Civil War bullets that would be deaccessioned if they became a lead dust sample would be X1874.12.22a-eX. Using an obvious designation like the X's will

prevent searching through the collection for objects that no longer exist there but will enable the facility to maintain records on those objects.

Deaccession for Repatriation of Native American Materials

The Fort Drum ACF will document activities related to repatriation of sacred prehistoric artifacts or human remains to responsible Native American representatives. NAGPRA documentation that will be readily available for Curation Facility Staff will include:

1. Copies of up-to-date Federal Regulations, Policies, and Procedures concerning repatriation.

2. Documentation of any repatriation that has already taken place.

3. Inventory of artifacts and their accession records that are eligible for repatriation.

4. Correspondence, addresses and points of contact for Native American representatives with interests in the materials in Fort Drum ACF collections.

5. Detailed procedures for handling objects that come to the attention of curation facility staff and that may be candidates for repatriation.

6. Work plans for meeting any new regulations that affect objects in the Curation Facility collections.

7. The Curation Facility will have a copy of: *Native American Collections and Repatriation* (Tabah 1992) and the associated recommendations from the National Park Service.

Deaccessions Procedure

1. It is determined that the object meets the above criteria for deaccession.

2. Written authority for deaccession must be requested and received through the chain from the Fort Drum Archeologist and the Environmental Division.

3. The object must be photographed.

4. Object records must be compared with the object.

5. Object records and object must agree, otherwise reconciliation must occur before deaccession may proceed.

6. The deaccession must be recorded in the Memo field for object description in the accessions file. The accession number must be preceded and followed by "X's" as well to indicate deaccession.

7. The object records and photographs must be cataloged and stored.

8. When steps 1 to 7 are complete, the object may be disposed of. The method of disposal should be recorded in the memo field for object description in the accessions file.

Object Disposal Procedure

If an object is deaccessioned for reasons of advanced deterioration or because it is of little inherent value and may be represented by other objects, the object will be disposed of in an environmentally appropriate fashion.

If an object is deaccessioned as part of NAGPRA, the object will be packed in accordance with professional standards and transported or handed to the appropriate Native American party. Consultation concerning care and storage of the object will be provided on request.

If an object is deaccessioned because it does not fit the mission of the repository, it will be offered to museums where it may potentially be an asset to the collections.

The Fort Drum ACF will not sell deaccessioned objects.

Deaccessioned objects may be used for educational programming and as teaching tools and may be curated for those purposes.

At no time may employees of the Fort Drum Environmental Division or members of associated military or nonmilitary organizations such as the Officer's Wives Club or the LeRay Mansion Preservation Corporation purchase or acquire objects deaccessioned from the Fort Drum ACF collection.

5 Policies and Procedures for Handling Artifacts and Documents

Artifact Processing—Field Curation Guidelines

Background

The handling of artifacts begins in the field. Curation staff significantly contribute to preserving these objects and preventing loss and damage by encouraging care and conservation from the moment an object is discovered.

Field Curation Policy

Repository staff will provide all field crews and contractors with appropriate field curation guidelines and any necessary training or demonstration. Staff will inspect artifacts coming in from the field to make sure guidelines are being met. Fort Drum will not accept artifacts, field notes, or images from contractors that do not meet the standards set in the Field Curation Guidelines. See Appendix M for the Guidelines based on field procedures provided by Louis Berger & Associates for their Fort Drum contract work. The Fort Drum ACF will not accept photographs from contractors that are not clearly labeled with respect to the context in which they were taken.

Additional Field Curation Recommendations

Common field curation problems could be cured by:

1. Use of proper heavy boxes. They do not need to be archival if they are temporary, but they do need to be strong enough to secure the artifacts within. Box contents should be limited to reasonable weights.

2. Use of zip lock-type bags with paper labels enclosed with artifacts. Field tags can be tied to most oversized artifacts as well. Rubber bands, paper clips, and scotch tape are not useful field curation supplies.

3. Careful labeling and consistency in the assignment and use of site numbers.

The Fort Drum ACF has developed an additional field photography curation policy:

1. Only one site may be recorded on a roll of film. Site photographs or negatives must be clearly labeled with the site number as well as with any special feature identification.

2. Photography journal records must be clearly marked with site numbers and special feature identification.

3. Photo journal entry numbers must match image numbers on the roll of film.

Object Processing Concerns

The goal of the Fort Drum ACF is to set standards for handling objects that will maximize the preservation of data. Only actions absolutely necessary to stabilize objects or to rid the collection of agents of deterioration will be performed. In cases where material remains require treatment with chemical solutions or preservatives, untreated representative samples will be preserved as well. Untreated samples will not be stabilized or conserved beyond dry brushing. Only qualified individuals will perform conservation or stabilization treatments of any kind on artifacts or paper objects at the Fort Drum ACF.

There are four basic levels of conservation treatment, adapted from the United Kingdom Institute for Conservation Guidelines (Cronyn 1990), which are appropriate for Fort Drum collections. To be realistic about collections management, excavated materials must be prioritized as to the level of conservation treatment they will receive:

1. Minimal conservation—the minimum amount of investigative cleaning as well as suitable packing for stable storage.

2. Partial conservation—a high degree of cleaning with active stabilization of the artifact if required. Broken or detached fragments may be reassembled and appropriate analytical information provided for the object.

3. Full conservation—cleaning, stabilization, reconstruction, analysis, photography, and possibly x-radiography.

4. Display conservation—full conservation with the possible additions of further cleaning, additional restoration, and cosmetic treatment.

Most of the Fort Drum materials will fall into the level two category (partial conservation). However, objects that cannot be stabilized sufficiently to be placed in storage will be set aside for Conservation Review and possibly delegated to conservation professionals for treatment. In addition to information here on processing and storage of the different artifact classes, staff members will be strongly encouraged to use specialized reference materials as guides in processing artifacts. References, including the National Park Service Bulletins on handling and preserving various materials, will be readily available to repository staff.

Object Processing, Marking Procedures

As with any procedure or treatment involving artifacts, marking should be as reversible as possible. Objects should be marked with catalog numbers only. Accession numbers will be written on acid-free labels and enclosed with the object or fastened to objects that do not have their own enclosures. Only objects belonging to the Fort Drum collections will be marked directly.

Marking Instructions

1. Before marking, a label area will be prepared on the object using a small amount of thick polyvinyl acetate solution (PVA). This soluble undercoat for the number would help in removing the ink, making the marking process somewhat reversible. The number can be covered with a second coat of PVA when complete. If PVA of sufficient thickness is unavailable, peels off too easily, or refuses to dry in humid weather, clear nail polish may be used as a substitute.

2. Use the archival marking tools and materials provided in the artifact processing area.

3. The form of letters and numbers is Upper Case/Lower Case/Numbers:

   ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
   1234567890

4. Select a color of ink that contrasts with the object (white or black).

5. Make the number legible.

6. Keep the size of the number consistent with the size of the object.

7. Keep placement of the number consistent for similar objects.

8. Place the number on a part of the object that will not receive friction and wear.

9. For objects not likely to go on exhibit, the number should be placed in a conspicuous location. Numbers that are easy to see let the researcher know the number without unnecessarily handling the object. Objects with aesthetic value or that may have exhibition potential should be marked in an inconspicuous location.

10. Detachable parts or related objects need to be numbered individually with the same catalog number that includes the lower case alphabet letter indicating their part number.

11. Where marking would deface the object, the object should be placed in an enclosure with an acid-free label or an acid-free label may be loosely tied to an object with archival cotton thread.

12. Marking should be done in a well-ventilated area.

Artifact Examination, Cleaning, and Stabilization

Accessioning provides an opportunity to survey the condition and storage status of objects as they come into the repository from in-house field crew or from contractors. The curator assigning the accession number needs to determine if the boxing and storage materials provided by the contractor are adequate and if the artifacts are in appropriate condition and stable for placement in permanent storage. The technician needs to keep the following guidelines in mind when working with collections.

Boxes need to be opened carefully. Occasionally too many artifacts are packed in a box or fragile artifacts are packed without supportive conservation materials. For example, it would be easy to break ceramics packed loosely in zip lock bags if they are not pulled out of the boxes gently. If the artifacts are otherwise ready for permanent storage, the technician may provide the necessary packing materials and repack as the accession number is assigned. See also **Artifact Preparation and Packing for Stable Permanent Storage** (p 45).

For safety, when processing boxes of archeological materials, it is very important to never stick one's hand blindly into the bottom of a box. Lift bags of artifacts carefully, and look before lifting. Broken glass and sharp-edged metal objects are dangerous to handle even when found in archeological collections. For further protection of personnel and objects, gloves should always be worn when handling and cleaning

archeological materials. Always keep in mind that pests like poisonous spiders can infest boxes of archeological materials and can be as much of a problem to the technician as they are to the collection.

Items made from different materials like metal, leather, and glass need their own enclosures when placed in permanent storage. In processing collections, whenever these items are found bagged together, they need to be separated and given their own bags, storage compartment, or shelf space. During this process it is very important to duplicate the tags and/or labels for these items and to put the appropriate archival tags and/or labels in the new enclosure with the object(s).

Many artifacts will already be bagged with catalog or provenience cards enclosed. An acid testing pen can be used to determine if these labeling materials are archival quality. If not, they should be replaced. If possible, write the accession number on the back of the catalog card. Only remove one catalog card at a time when working on a series of artifacts.

If there is no card already enclosed with the artifact, use archival quality tags to write the accession number and enclose it with the artifact. Accession number tags can be loosely tied to large artifacts that do not already have attached labels. When marking the accession number on the card include the date of the accession and initials of the staff member on the card. When processing is complete, each artifact will have a catalog number and an accession number stored in association with it.

Every item is assigned a unique accession number with a corresponding computer record. The exception to this assignment rule are bags of like objects that share a catalog number like broken glass, potsherds, flakes, and rusty nails. These will be accessioned as groups, assigned one accession number with the elements of the group designated by the alphanumeric element on the end of the accession number. Bags with too many pieces to count within a reasonable time can be designated a-z.

In some collections provided by archeological contractors, it has been common for the excavators to assign the same catalog number to small finds of unlike substances and store them together. When unlike artifacts, for example, nails and glass are separated for permanent storage, they need to be assigned unique catalog numbers.

Many of the boxes from the contractor will contain items that need to be removed from their enclosures, cleaned, stabilized, and/or provided with different storage enclosures. During this process, it is critical to never separate an object from its identification tag. Create additional tags for objects being placed in new enclosures of their own.

Occasionally the contractor will pack an artifact for shipping into a box containing objects from another site. Technicians should pay close attention to the catalog labels on the objects as they work on accessioning. Objects found in boxes without labels should be examined for identifying catalog numbers and placed where they belong. An object without any identification should be provided with a label indicating the box where it was found.

If there is question or concern about the provenience of artifacts, the bag lists and artifact catalogs in the field notes found in the site record files need to be checked against the artifacts present.

Some of the storage boxes may contain extremely heavy objects (e.g., bricks, metal artifacts). Good shelving design should preclude the need for stacking. However, if stacking is necessary, heavy boxes should be placed on the bottom even if it puts the boxes out of order. Banker-sized storage boxes should never be put in stacks of more than four. For heavy boxes, bottoms should be reinforced. Note heavy boxes so that they can be removed from the shelving safely.

Artifact Conservation

During the accessions process, curation staff must assess the condition of each artifact. Since most curation facilities will not have a full-time archeological conservator on staff, the installation is best served by putting aside a series of objects requiring professional conservation opinions as to their condition and treatment requirements. As a result, when funds become available for conservation consulting, the entire series of objects benefit. Any artifact requiring examination by a museum conservation professional should be allocated to a specially designated storage area to await conservation review and an effort made to regularly consult with a conservator. Objects should not be placed into permanent storage until their conditions are as stable as possible. Specific and detailed written records and reports will be kept for objects reviewed.

Conservation Policy—The Fort Drum ACF

It is the policy of the Fort Drum ACF that artifact conservation treatment will be undertaken only by individuals trained and experienced in artifact conservation. Professional expertise will be sought whenever possible.

Artifact Preparation and Packing for Stable Permanent Storage

Background

Packing strategies for permanent storage are largely a matter of common sense. There are two basic goals to keep in mind when packing artifacts.

1. The ideal condition for the artifact is stay in the same condition in which it was found in the ground for an indefinite period of time. In addition to having the appropriate temperature and humidity, the object should be supported and immovable in the packing material.

2. The artifact needs to always stay with its tag and/or label.

In addition to the following discussion, the National Park Service Museum Handbook (1990, Appendix K) offers comprehensive instructions for packing and storing archeological materials as do the archeological curation and conservation references listed at the conclusion of this report

Packing Materials

Transparent packing materials should be used when possible. Clear enclosures allow curators and researchers to see through the containers, enabling artifact identification and condition monitoring without disturbance. The enclosures and packing should prevent the objects from moving around inside boxes or on moving shelves, and objects should not rub against each other. All artifacts should be supported within the enclosures. One way to provide support is to layer the objects within the box, heavy objects on the bottom grading to lighter objects on top. The layers should be separated by sheets of polyethylene foam. A better way to make layers is to use acid-free cardboard trays to hold the objects. For larger objects sharing space within a box, polyfelt liner or bubblepack can provide supportive padding as can cotton or polywool encased in zip lock-type bags to make pillows. Significant or fragile objects may warrant creation of custom ethofoam molds. Styrofoam "peanuts" should always be avoided as an artifact packing material not only because the styrofoam can be chemically unstable but also because over time the objects work their way through the peanuts to the bottom of the larger enclosure.

Object Enclosures

Pottery sherds, glass and ceramic fragments, nails, and architectural materials can be placed in perforated zip lock-type polyethylene bags with a label enclosed made of acid-

free paper or spun-bonded polyethylene. Small, fragile artifacts can be placed in appropriately sized polystyrene boxes with snap shut lids, and carefully padded with expanded polystyrene (Pearce 1990, 93). Direct contact of artifacts with fibrous padding like cotton or polyester wool should be avoided because the fibers catch on rough object edges and tear the object apart over time. The acidic corrugated cardboard boxes and brown paper bags that are commonly used for packing artifacts in the field need to be systematically discarded and replaced with the zip lock-type bags and acid-free storage boxes. In extreme environments, acidic storage materials literally self destruct leaving piles of unlabeled artifacts on storage shelves (Spirydowicz 1992).

Oversized Objects

The Fort Drum collection contains large objects that do not fit in boxes and that require custom storage. Polyfelt lining is very useful as shelf padding for objects to be stored directly on shelves. These same objects can be gently covered with muslin and plastic to protect them from dust. Muslin can also be used to cover objects too large to be shelved. Very large objects need to be evaluated on a case-by-case basis for creation of the appropriate custom storage environment. When using wall ladders or building custom storage racks or containers, the critical needs are physical support for as much of the object as possible, protection of any fragile components of a large object, protection from dust, and stability. The custom storage container or rack should ensure that the large object will not move when nearby objects are used or in the case of earthquake.

Selecting Storage Locations for Artifacts

Making decisions about storage locations for archeological material is always problematic because the curator must balance the need for organizing the artifacts together by provenience with the individual artifact needs for special storage environments. Shoe leather and nails found together in an archeological context have different needs for ideal storage temperature and environment. In addition, there is the question of varying levels of use and accessibility requirements for the various collections that must be considered when storage locations are assigned. At the Fort Drum ACF, the storage environment will be controlled as carefully as possible for all artifacts, and fluctuations in relative humidity and temperature will be kept to a minimum. As a result, only the most unstable objects will warrant specialized storage environments. In those cases, the academic integrity of the collection will be maintained through the recordkeeping system. As mentioned above, any time an object is separated from other artifacts from the same site for special storage,

exhibition, conservation, or any other reason, a label indicating its current location will be left in its place.

Making Environmental Storage Requirement Decisions

The National Park Service divides archeological material into three categories of stability (NPS 1990, I, pp 5-7):

1. Negligibly Climate-Sensitive Materials—Materials like fired ceramics and stone, inorganic architectural materials, dry pollen, flotation, faunal remains, and unprocessed soil samples. These materials can tolerate a range of variation in temperature and humidity as long as the fluctuations are not severe. The tolerable temperatures can range from above freezing to 100 degrees and the relative humidity (RH) from 30 to 65 percent.

2. Climate Sensitive Materials—Stable metal, stable glass, worked bone, antler, shell, botanical specimens, textiles, wood, skin, leather, fur, feathers, horn, natural gums, resins, and lacquer. The temperature and relative humidity ranges are slightly narrower for these specimens. The ideal relative humidity for collections recovered from Eastern Woodland areas and in proximity to lakes and rivers would be between 40 and 55 percent. The storage temperatures should not go below 50 or above 75 degrees. Since the specifications for the environmental controls at the Fort Drum ACF are designed to moderate environmental fluctuations and to use humidistatic heating to keep the humidity as stable as possible, all artifacts in Categories I and II should be able to be stored together as site collections. Fortunately, the vast majority of items in the Fort Drum collections fall into these categories.

3. Significantly Climate-Sensitive Materials—Unstable ceramics and stone, devitrified glass, unstable metal especially iron, mummified remains, composite objects. These materials require a steady temperature between 60 and 72 degrees. However, all category three materials require lower percentages of relative humidity. Unstable or rusting iron, which is a concern for the Fort Drum collections requires a relative humidity of below 15 percent.

Creation of a Microclimate

It will be necessary to create microclimate storage spaces for significant or extremely unstable iron objects. The process will be to:

1. Remove the iron artifact from its space with the rest of the collection and leave a label in its place

2. Place the iron artifact in a sealed, waterproof container of adequate size, which can be made of inert clear plastic sealed with archival tape.

3. The dry environment will be created by adding silica gel to the sealed container to absorb the moisture from the container atmosphere. The correct amount of silica gel is 5 lb of silica gel per cubic yard of storage container. It is useful to use standard size storage containers and to make standard size packets of silica gel for them using the above formula. Silica gel can be placed in muslin bags sealed with Velcro or perforated zip lock-type bags and should not contact the object directly. The packets should offer maximum surface exposure to the gel; in other words, they should be thin and flat.

4. Select a storage area for the microclimate containers. Theoretically, the artifacts in the sealed containers could be returned to the site collection for storage. However, it is much more efficient to monitor the enclosures regularly if all of the similar containers are stored together. Another advantage of a separate storage space is that the regular activities necessary for maintaining the microclimates need not disturb other, more stable collections in storage.

5. Monitor the enclosures. Clear silica gel should be mixed with a small amount of colored indicator gel so that when the gel becomes saturated and needs to be reconditioned or dried out again, it will be obvious to the curator. The containers should also be monitored using humidity cards. It is very important that the curator monitor the microclimates at least every six months. However, the use of clear containers would enable the curator to examine the humidity cards often without opening the container. The more often the container is opened, the more often the silica gel will require reconditioning.

6. Recondition and reuse the gel. Silica gel can be reconditioned by being placed in an oven at 300 to 350 °F for 2 or more hours or by microwaving at low power for at least 5 minutes.

Secure Storage

As a curator processes collections, discoveries of significant or valuable objects may be made. At that point, the curator needs to consider whether the value of the object warrants special access restrictions. In making decisions about secure storage, the curator needs not only to think in terms of cash value but also from a collector's or

enthusiast's point of view. A 1920 Model A gas cap in good condition would be as great a risk of being stolen from an archeological collection as a piece of gold jewelry. It is useful to note that in the collections supplied to Fort Drum by Berger & Associates, there are small valuable objects mixed in with artifacts marked "Small finds and architectural."

Secure storage will consist of locked cabinets, and access to these objects will be under the direct supervision of the curator, the Fort Drum Archeologist, or a designated employee of the Fort Drum Environmental Division. Microenvironments can be set up within the secure storage cabinets if necessary. When an object is removed from its collection for secure storage, a label will be left in its place indicating its location and advising the user to request help from curatorial staff.

Should human remains enter the Fort Drum ACF, they will be placed in secure storage.

Type Collections

Diagnostic artifacts like projectile points, pottery sherds, or specific artifacts of historical significance may be pulled from their site collections and made accessible to the Fort Drum Archeologist and visiting researchers as type collections. These materials will be stored in a locked cabinet and will be placed on supportive padding in compartmentalized trays or in transparent containers so that they may be examined and used for comparison with a minimum of handling. As with other artifacts removed from the site collections, labels will be left behind when they are removed from the site collections indicating their location in type collection storage. Type collections of similar materials and function will be stored together and microenvironments can be provided if necessary.

Storage Assignments Based On Access Requirements

Pearce (1990) suggests three classes of collection use:

1. Day to day use—these materials include artifacts and records from ongoing or recently concluded excavations, material being studied by a researcher, or material to be used in an upcoming exhibition or program.

2. Material in steady demand by workers of all kinds. This material needs to be cataloged, curated, and accessible when requested.

3. Material that is not consulted often and is unlikely to be displayed.

It should also be kept in mind that the site records are more likely to be consulted on a regular basis than the artifacts themselves.

For Fort Drum a fourth class will be added:

4. Type collections for comparison.

First, in most situations there should be a special storage area for any objects in the day-to-day use category. Ideally, this storage space should be adjacent or readily accessible to a study area and/or the offices of staff members using the objects. However, at Fort Drum the storage spaces and SpaceSaver™ shelving are designed to provide ready access to all of the objects so that day to day use is not problematic. Most of the objects at Fort Drum will be in the second category, so the primary framework for storage organization will be based on archeological site numbers. Given the nature of the Fort Drum collections, the relatively stable nature of their component materials, and the fact that their current organization is by site, provenience will be the priority in storage decisionmaking. Boxes and artifacts from the same archeological sites will be placed in permanent storage together. The only reasons for making alternate storage decisions would be the separations due to conservation concerns discussed above and special storage of type collections.

Some boxes will come from the contractor containing small collections of items from different sites. Small collections of items from small sites should be shelved separately and not within other larger boxes. Shelving collections from different sites in their own spaces will make the artifacts easier to find and will prevent disturbance of collection from one site when a researcher is looking for artifacts from another.

Some of the storage boxes contain extremely heavy objects like bricks or metal artifacts. Stacking should always be avoided, but if it is necessary to temporarily stack boxes in storage, heavy boxes should be placed on the bottom even if it means stacking the boxes out of order. Only one heavy box should be in a stack if possible. The 12 x 15 x 10-in. "banker" storage boxes should never be placed in stacks of more than four.

Record Storage

Records will be stored in a manner that will protect them from theft, deterioration, and fire. Copies of final reports and site forms will be maintained and accessible through another party, possibly the New York State Office of Historic Preservation. The

associated records will be cataloged and stored by provenience with the first organizing factor being archeological site number and the remaining folder divisions based on the type of record. Photographs and slides will be placed in archival sleeves, bound in ring binders, and stored on shelves or in the vertical files. Photographs from archeological excavations and of artifacts will be cataloged and stored by film type and print size with the other site records. Archival and historic photographs without direct relationships to archeological sites will be cataloged and stored by subject, with emphasis on the location within Fort Drum where the photograph was originally taken. Maps and renderings will be stored flat in archival folders. They will eventually be scanned into the computer to provide digital duplicates.

Careful consideration has been given to the issue of fireproof storage for paper records and archives. The decision has been made to duplicate critical and unique site records by photocopying them onto acid-free paper and storing them elsewhere. These duplicates will be stored in the Environmental Building's central file in Building T-4838. Note that some records already have duplicates. At Fort Drum, many of the historic background records have been duplicated from census records stored in Watertown at the County Archives, and the computer printouts duplicate information stored on computer disks. All information on computer disk will be copied and stored on additional disks in the central file. An important consideration in the decision to use duplication rather than purchase of fireproof file cabinets has been the prohibitive cost of superinsulated cabinetry.

Using the military museum requirements as a guideline, the decision has been made to designate an area separate from artifact storage for archival holdings. This area will have adequate space, equipment, and furniture to accommodate research activity.

6 Physical Facility and Permanent Storage

Often collections managers feel overwhelmed by their perception of inadequate storage facilities. When it is clear that total temperature and humidity control is not an option, the collections manager makes the choice to "do nothing." In actuality, fluctuations in temperature and humidity are far more damaging than extremes, and there is much a good collections manager can do to moderate the severity and frequency of those fluctuations. Insulation, creation of micro-storage environments, box within a box storage strategies, and good housekeeping practices are all steps that improve collections management in even seriously deficient physical facilities. Until state-of-the-art storage facilities are available for all collections nationwide, each person responsible for collections held in the public trust has an obligation to take all possible steps to improve the storage conditions for the collections entrusted to them.

As mentioned above, the two major components and strengths of the Fort Drum ACF Prototype are:

1. The collections management plan—Curation Methodology

2. Renovation of an historic structure and establishment of environmentally controlled storage

As the discussion continues, it becomes clear that planning for artifact storage, specifying renovation needs, designating work areas, and other aspects of developing the physical environment work in concert with the collections management policies and procedures to result in an optimal curation facility.

Introduction to the Renovated Curation Building

The Fort Drum ACF will be housed in a renovated B-74 type World War II barracks building. The building is a two-story, wood frame building, 28 ft, 6 in. wide and 89 ft, 4 in. long, and set on piers. When renovated, the building will have two large storage areas on both floors equipped with SpaceSaver™ shelving, cabinets, files, and generous workspaces. There will also be two large offices on the second floor. On the first floor, in addition to storage, will be the utility and mechanical rooms, a restroom

storage room for field gear, and a small artifact-processing laboratory. The renovated building is heavily insulated and heated. The building will be near the Environmental Division offices, making the collection accessible to the Fort Drum Archeologist. The renovation drawings have been supplied by architects specializing in preservation architecture working at the U.S. Army Engr. District, Seattle. One very important component of the success of the Fort Drum and Fort Polk Curation Facility programs is that curatorial staff have been included in the renovation planning process and have been permitted to cooperate with the construction team in making the best possible decisions about design and construction of the storage and artifact processing areas.

Many collections conservation issues can be addressed in site selection and construction or renovation of a proposed curation facility building. First, if curation staff have an opportunity to participate in site selection, they will want to consider the potential for disaster like fire or flood. On a military installation, one might want to avoid proximity to fuel dispensing or storage facilities as well as floodplain locations. The Fort Drum ACF is located on a relatively high, well-drained land form away from the creeks and rivers on post. There are no tall trees in the vicinity of the structure, but fire could spread between the wood frame buildings in its neighborhood.

Fort Drum is in the proximity of a major fault zone in the northeastern United States, and earthquakes need to be a consideration in determining storage furniture configurations. In addition, military activity creates vibration and shock waves from time to time. Objects will be padded and placed securely in the storage spaces to prevent rolling or vibrating off of shelves in the event of motion.

The building and renovation construction exceeds local fire codes and is structurally sound. Security has been a critical consideration in design of the doors, windows, and lighting. In the case of Fort Polk, all windows are walled in to simplify security and to manage light levels in the storage areas. At Fort Drum, select windows will remain in object-processing and office areas to improve the work environment for the staff, but these windows will be equipped with opaque blinds, which can block the light when light sensitive artifacts are in use. All windows in the permanent storage area on the second floor have been blocked in to control humidity and temperature.

Because of the age of the building, load-bearing capabilities have been carefully reviewed for decisions about types of storage furniture and average weights of objects or boxes to be stored per square foot. To distribute the weight as much as possible, storage at Fort Drum will be divided between the first and second floors. The first floor of the structure is several feet above the ground, so external water damage potential is not significantly different between the first and second floors. Objects will not be stored directly on the floor anywhere in the facility.

Potential water damage from within the building has also been minimized by limiting plumbing to lower floors, never running plumbing over storage areas. At Fort Drum, all plumbing was removed from the second floor and the areas with running water were limited to the first floor restrooms and one artifact processing area in one corner of the first floor.

The storage furniture itself must be adequate to support the objects or boxes and designed to prevent sliding, rolling, or falling when objects are accessed or in the case of an earthquake. In addition, soft vinyl has been requested for the floor covering so that there will be some padding should an object fall. It is possible to purchase floor padding for artifact processing areas for extremely fragile and valuable collections, but this expense is not warranted at Fort Drum. Use of wheeled carts for moving objects within the facility will also decrease the potential for damage to objects being used or processed. A consideration in allocating and designating the storage, processing, and use areas was to minimize carrying objects, especially up and down stairs. The installation of a dumb waiter prevents the need for carrying objects up and down stairs, but is an expensive solution.

Standards for Storage Conditions

Storage Policy

The Fort Drum ACF has set storage standards designed to prevent deterioration of artifacts in storage. As outlined in the federal regulations, the objects and records will be protected from breakage and possible deterioration from adverse temperature and relative humidity, visible light, ultraviolet radiation, dust, soot, gases, mold, fungus, insects, rodents, and general neglect. Each artifact will be provided with sufficient space, storage furnishings, temperature, humidity, light levels, and security to maximize object stability over time. All storage complies with or exceeds standards set in Federal Regulations 36 CFR 79.

The Fort Drum ACF will maintain records associated with all of the artifacts in the collection. Paper records will be stored in vertical or flat files depending on their size. Computer disks will be kept in custom storage containers. Records that do not already have an associated computer file will be used to generate copies either microfilmed or scanned into the computer to provide duplicates with alternate location storage. Cultural resource contractors or academic studies will be required to supply one set of field documentation and laboratory analysis records on acid-free paper. The repository staff will create acid-free duplicate paper records for records from other sources.

A duplicate set of site survey records will be stored at the Fort Drum Archeologist's Office and maintained by repository staff.

References and finding aids for Curation Facility paper records will be entered into the Environmental Division central files and will be maintained and updated by repository staff.

All objects and records in storage will be easily located using storage locations recorded in the curation facility's computerized collections management system. Inability to locate an object in storage after reasonable efforts have been made will result in inventory of the collection concerned.

Authorization of the Fort Drum Archeologist or a representative of the Environmental Division is required to borrow, remove, or deaccession artifacts from the curation facility. Whenever an object is removed from its storage location, a label indicating its current location and expected return date will be left in its place.

The repository building exceeds all local electrical, fire, building, health, and safety codes.

Access to keys for the storage facility will be limited to the Environmental Division Office, the Fort Drum Archeologist, and the Curator or their designees as outlined in AR 190-18, Sect. II, pt. 10, "Locks and Keys." (See Appendix K for key control forms.)

Physical security of the Fort Drum ACF will follow the guidelines for Army Museums outlined in AR 190-18, *Physical Security of US Army Museums*.

If at some point weapons are accessioned, their storage and security will also be in compliance with AR 190-18.

The Fort Drum Archeologist and Curation Facility staff reserve the right under Federal Regulation 32 CFR Ch. I, "Protection of Archeological Sites," to limit access to information about specific locations of archeological sites on Fort Drum. This information shall be made available at the discretion of the Fort Drum Historic Preservation Officer following the guidelines outlined in 32 CFR 229.18 sections 1 and 2. Specific site information will not be found in any public access files at the Curation Facility or at the Environmental Division Offices. This information will be stored in a restricted location at the Curation Facility and used under the supervision of the curator or Archeologist after access has been granted.

Specifications for Storage Environment

The collections of the Fort Drum ACF will be stored in the best available facilities, secure from human intrusion and the elements. The facility will also be insulated from environmental extremes, provided with a heating system in addition to passive ventilation for cooling, and will have ultraviolet filters on lights and windows. Environmental goals are to keep fluctuations in temperature between 67 ± 2 °F and in relative humidity from 50 to 55 percent. Reducing fluctuation in humidity will be a priority over stable temperature.

The environment of the storage areas will be monitored using hygrothermographs, set on 31 day cycles. The hygrothermographs will be checked weekly and independently calibrated annually using a psychrometer and thermometer. Ultraviolet light levels will be monitored using a handheld meter every 6 months at every artificial and natural light source to ensure that effective shielding is maintained. The repository will maintain files of environmental records.

The varied nature of collection materials prevents humidity adjustment to ideal levels for metal and wooden objects, but very sensitive metal objects will be stored with silica gel and monitored to further reduce humidity. The physical specifications of the Fort Drum Artifact Curation Facility are designed to comply with artifact conservation and preservation guidelines outlined for Army museums in AR 870-20 Section 4-6.

Artifact boxes will be stored in a SpaceSaver™ shelving system and large objects should rest on padded shelves. Stable storage for objects too large for shelves will be provided by simple construction of custom racks and/or supports. There will also be map and file cabinets for flat and paper objects. Work tables, office space, research and library areas along with computer terminals will be located adjacent to the storage spaces. The accessions policy ensures that there will be sufficient storage space for all accessioned artifacts. Note that SpaceSaver™ Shelving is an efficient storage system, but its installation is not critical for developing a successful curation facility. Fort Polk personnel are very satisfied with the configuration of heavy load bearing, steel shelving with baked enamel finish.

At Fort Drum, the floors will be even, provided with surfaces that are easily cleaned, and slightly padded to mitigate damage to dropped objects. There will be no plumbing close to object storage. The repository will maintain high housekeeping standards. Object cleaning and processing areas will be separate from storage areas, and field equipment will be stored in a separate room near the entrance to the facility.

Alarm Systems and Security

At Fort Drum, all security activities shall be coordinated with the installation's Provost Marshall's Office. Ideally, there should be alarm systems on the doors and windows, access to collections will be supervised by repository staff, and smoke and fire alarm systems should be tied directly to the Fort Drum fire station, which is less than 5 minutes away. Authorized access to the collections will be monitored by maintenance of computer log records. The security systems will strive to adhere to the levels of security outlined in AR 870-20 section 3-7 for Army museums and should eventually include:

1. Fire detection in all areas of the facility
2. Fire extinguishers in all areas of the facility
3. Infrared intrusion detection
4. First floor window grates.

Pest Management

Every 6 months or if there is evidence of pest infestation, sticky pest traps will be distributed throughout the curation facility and collected after a 24-hour period. Identifying pests in the traps and patterns of infestation will enable curation facility staff to determine sources of invasion and develop strategies for prevention. Discovery of the invasion route and physical exclusion should solve most pest problems, a strategy that has been implemented with success at the Smithsonian (Rose 1985). Pesticides and artificial means of pest control can be as deleterious to artifacts as they are to humans, so fumigation will be used only as a last resort and with approval of a conservator. Eating and smoking in the curation facility are prohibited.

7 Use of the Collections: Policies and Procedures

Collection Use Policy

In accordance with 36 CFR 79, the Fort Drum Repository collections and associated records will be available for scientific, educational, and religious uses, subject to such terms and conditions as are necessary to protect and preserve the condition, research potential, religious or sacred importance, and uniqueness of the collection. To gain access to the collections, all potential users must submit a request to the Public Affairs Office. Once the request is referred to the DEH, the petitioner will be asked to specify the qualifications, objectives, proposed methods of use, and portions of collections requested. The Fort Drum Archeologist or curator will evaluate and make recommendations to the HPO to determine whether access will be granted. (See also Appendix K, "Patron Request Form.")

The collection will be available to qualified professionals for study, loan, and use for such purposes as in-house and traveling exhibits, teaching, public interpretation, scientific analysis, and scholarly research. Qualified professionals would include, but not be limited to, curators, conservators, collection managers, exhibitors, researchers, interns, scholars, archeological contractors, and educators. Students may use the collections when under the direct supervision of a qualified professional.

Any resulting exhibits and/or publications shall acknowledge the Fort Drum Artifact Curation Facility as the curatorial facility and the U.S. Army as the owner and administrator of the collections. Copies of any resulting publications including exhibition supplementary materials shall be provided to the Fort Drum Archeologist. Any of these publications related to Fort Drum's prehistoric collections will be offered to the appropriate parties at the Akwesasne Iroquois and Onondaga Iroquois Nations.

Access to Collections

The Fort Drum ACF will be open during regular civilian business hours at Fort Drum. An authorized facility staff member must be present for the facility and its contents to be available to the public or to outside contractors. The facility will be locked and secure when no staff members are present.

Access to Information

Access to information relating to the nature, location, or character of prehistoric and historic cultural resources located within the boundaries of the Fort Drum Military Reservation and its real property assets will be limited unless the Fort Drum Archeologist determines that such disclosure will not create a risk of harm, theft, vandalism, or destruction to the resource or the area or place where the resource is located. In addition, certain significant archeological sites are "off limits" by order of the Post Commander to all personnel including military operations. All photographic reproductions must be authorized by a reproduction rights and authorization forms (Appendix K). Administrative records will be kept of all use of the repository research facilities and collections.

Loan Policy

All outgoing loans of Fort Drum ACF materials require execution of written loan agreements, which include written authorization of the HPO and the ACF Curator. Curation facility standards for packing, transportation, storage, use, and compensation for losses must be assured before a loan may be authorized. On some occasions, the Fort Drum Archeologist or the Curation Facility. Curator may need to borrow objects for study or exhibit at Fort Drum. These incoming loans will require execution of written loan agreements and authorization of the Garrison Commander and DEH. The Curation Facility will accept no third party loans.

Loan Procedures

Incoming objects on loan will be registered using the temporary registration accessions procedure. Standard museum loan agreements will be executed using the Fort Drum ACF Temporary Custody Receipt Form. In addition, U.S. Army bailment agreements (Appendix K) as provided by the Fort Drum Staff Judge Advocate's Office will be executed and signed by the appropriate military personnel. The owners of the items sign both the museum loan agreement and the bailment agreement.

A photograph or videotape of the item, in the condition "as received" and a description and condition report must be made for an item to be accepted as a loan. This information will be agreed on and signed as part of the execution of the loan agreement. Packing and transportation of loan items to and from Fort Drum and responsibility for items en route will be agreed on by both parties for execution the loan. When the item is returned to the owner, the owner will provide the Fort Drum

ACF with a completed and signed custody receipt as provided in the Fort Drum ACF Temporary Custody Receipt Form.

Special Considerations

Throughout the history of the United States, activities sponsored by the Federal Government, ranging from water projects to construction of military bases, have resulted in the displacement of American citizens from their homes and properties. Many archeological collections in the custody of the Federal Government are directly related to the activities of these people and their communities. Individuals responsible for curation at federal repositories need to be sensitive to issues related to the specific history of their installation, for example:

1. When Pine Camp was expanded to become Fort Drum during World War II, many local families lost their homes, businesses, and farms. Many of these family members are still alive and still have strong emotional attachments to these locations. With permission of the base commander, and when military activities do not pose any danger, family members may have access to all burial and cemetery locations on the military reservation. Curation and environmental division staff also cooperate to fill requests for genealogical information whenever possible. In this respect, the Fort Drum ACF supports the public relations mission of Fort Drum by facilitating access to genealogical information and cemeteries for these families.

2. It must be remembered that support for the training mission of the 10th Mountain Division (LI) stationed at Fort Drum is a priority in the mission of the Fort Drum ACF. On occasions when there are competing interests for access to the collections or attention from the curation staff, the needs of the 10th Mountain Division (LI) and/or contractors serving the division must take priority.

3. Members of the Akwesasne Iroquois or Onondaga Nations may inspect the prehistoric collections at the Fort Drum ACF at any time. It is helpful and highly recommended that representatives of these nations make prior arrangements with the Fort Drum Public Affairs Office (PAO), Archeologist, and curator of the facility before arriving.

Exhibition Policy

The Fort Drum ACF is an artifacts repository, not a museum. As such, education and interpretation are not primary goals of the institution. However, from time to time, the repository may receive requests for small exhibits of artifacts housed at the facility. A small exhibit may be prepared by curation facility staff provided that the following guidelines are met:

1. Requests for exhibits must be approved by the Fort Drum Archeologist who will consider purpose of the exhibition, venue, staff time and finances available in rendering a decision.

2. Exhibit topics must be related to the history of the Fort Drum Military Reservation as outlined in the repository mission statement.

3. All artifact location procedures must be followed when objects are placed on exhibit.

4. Artifact curation facilities are not in a position to seek or accept independent, academic, corporate, or individual sponsorship of exhibits.

5. Sufficient funds must be available to purchase exhibit materials for the facility to sponsor a small exhibit.

6. Display environments and curation of artifacts on exhibit will emphasize conservation and security of the objects. Conditions will be consistent with guidelines set in AR 870-20 section 3-5 for Army museums.

Public Programming Policy

The identification of the Fort Drum ACF as a repository and not a museum means that public programming is not a priority for this institution. The exception to this policy is provision of educational programming for colleagues based on the status of this facility as a prototype. The Fort Drum ACF may be able to host demonstration workshops and when feasible, will have the expertise to offer consultation to other federal facilities. Other public programming guidelines include:

1. All requests or plans for ACF-based public programs will be reviewed by the Fort Drum Archeologist and the Fort Drum PAO, who will consider availability of appropriate facilities, topic, or purpose of the program, funds, and staff time before rendering a decision.

2. The staff of the Curation Facility will cooperate in every way possible with the public relations needs of Fort Drum and the 10th Mountain Division (LI) as expressed by the PAO and Garrison Command.

3. All public programming and visitation for LeRay Mansion will follow the guidelines set out in the draft LeRay Mansion Utilization Plan.

4. Only duplicate, reproduction, or deaccessioned artifacts will be featured in educational or public programs.

8 Curation Methodology for the LeRay Mansion

Curation of the Structure

The LeRay Mansion is on the National Register of Historic Structures, and curation of this building is governed by the responsibilities and requirements of its National Register designation. The building is structurally sound and in good condition. The 10th Mountain Division (LI) currently uses the Mansion for billeting important visitors to Fort Drum, occasional receptions, and ceremonies. The primary function of the building then is visiting officer quarters (VOQ). The secondary function is public assembly.

A current and significant historic preservation goal at Fort Drum is to develop a utilization policy for the LeRay Mansion that will govern authorization of activities to take place within the building. The challenge is to meet the Mansion's historic preservation needs while providing reasonable access. Groups with interests in Mansion activities include:

1. The Fort Drum housing office, which is responsible for the visiting officer accommodations in the upstairs bedrooms.

2. The Fort Drum Commanding General's office, which sponsors receptions and officer's gatherings in the building.

3. The Fort Drum Officer's Wives, who hold social functions at the Mansion and who are interested in providing volunteer services for Mansion preservation.

4. The LeRay Mansion Preservation Corporation, a not-for-profit organization of civilians from the region who are interested in the historic preservation of the structure. There is a more detailed discussion of this group below.

5. Citizens of the North Country many of whom have strong feelings about preservation of the Mansion as a significant historic landmark in their region and as part of their heritage.

6. The Fort Drum Environmental Division is charged with reviewing, conservation, and preservation of the structure. In keeping with preservation goals, efforts are under way to provide restoration furnishings, collect artifacts with direct significance for the history of the LeRay Mansion, and to provide educational exhibitions within the mansion for the benefit of the people who visit the building. Successful efforts to accurately refurnish the public rooms in the Mansion would enable Fort Drum to occasionally open the building for guided tours and educational programs, which would be a tremendous public relations asset for the installation.

The challenge of developing the utilization plan is to enable continued use of the Mansion as VOQ, to suggest furnishings that will not only make the visiting officers more comfortable in the public rooms but that also will be historically accurate, and to provide guidelines that will protect the structure and its contents while authorizing access. An effective utilization plan will also include long range planning for structural maintenance and rehabilitation as needed.

The Fort Drum Environmental Division works in consultation with a respected restoration architecture firm that has provided Fort Drum with thorough examination of and recommendations for renovations of both the exterior and interior of the structure. Under the direction of the restoration architects, Fort Drum is in the process of retrofitting the mansion with a sprinkler system. The Fort Drum Archeologist plans to implement an historically accurate furnishing plan for the Mansion within 5 years.

The structure is heated and air conditioned, with a goal of maintaining the temperature of the structure at 67 °F. There is a dehumidification system in the basement. Ultraviolet shielding will be added to the windows in the near future. The building is locked with keys controlled by the Fort Drum Housing Office unless authorized personnel are on the premises.

Utilization of the mansion will be governed by the LeRay Mansion Utilization Policy, which, when complete, will be approved by the Fort Drum Commanding Officer and implemented by DEH.

LeRay Mansion Associated Artifacts

The utilization plan for the mansion will govern management of the historical character of the Mansion, its outbuildings, grounds, and the Mansion contents. Given the varied nature of visitation to the Mansion, the Curation Facility staff will be

realistic about their ability to ensure security for sensitive objects when deciding whether or not to place them on exhibit in the Mansion. The Historic Preservation Staff at Fort Drum will attempt to use reproductions or antique furniture of little historic significance when furnishing period rooms at the Mansion.

All artifacts on display in the mansion will be accessioned into the repository collections and subject to the curation policies and procedures. All small artifacts related to the LeRay Mansion collections will be stored in the curation facility unless on exhibit in the Mansion housed in special exhibit cases. At no time will the LeRay Mansion be considered a storage facility or used as a permanent artifact storage space.

In addition to the curation methodology applied to all of the other artifacts, the curation staff will use room inventories and files to aid in the management of period rooms and artifacts at LeRay Mansion with cooperation from the Fort Drum Housing Division.

LeRay Mansion Artifact Reproductions

Because the mansion is used primarily for VIP billeting, it is appropriate to furnish portions of the mansion with furniture reproductions. Reproductions will be distinguished from original period pieces in their use and display throughout the mansion. Reproductions will not be accessioned into the curation facility collections. However, reproductions will be inventoried and tracked using the Curation Facility management system.

Friends Groups

If managed very carefully, the formation of a friends group can be one way to broaden the horizons for historic preservation activity at a federal installation. Historic structures and special collections often attract interest in local communities, and military bases especially are known for their outstanding volunteer efforts. However, for the relationship between professional preservation activities and volunteer efforts to be productive, several elements are critical:

1. Establishing bylaws for the friends group. The bylaws should clearly outline the mission, goals, governing authority, permissible activities, and relationship between the group and the installation.

2. Establishing clear responsibility for liaison between the friend's group and the installation. A representative of the installation should be required to attend all friend's group meetings and to keep track of their activities.

3. Volunteer job descriptions and responsibilities should be put in writing.

4. The friends group should not have access to historic structures or collections without the installation liaison present.

The friends group cannot anticipate financial or logistical support from the Federal Government or the installation.

The LeRay Mansion Preservation Corporation

Encouraged by the Army's commitment to public involvement in preservation of its cultural resources, a group of interested civilians from Watertown, NY, and several other communities surrounding Fort Drum formed the LeRay Mansion Preservation Corporation in 1989. The constitution and bylaws for this organization can be seen in Appendix N, and the organization exists at the discretion of the Installation Commander. This organization was founded for "the purpose of coordinating the efforts to maintain the LeRay Mansion as [an] important landmark in the history of Jefferson County." Recognizing that the building is owned by the Federal Government and managed by the Army, the corporation will "offer advice and counsel as to the restoration, renovation, and decorating styles for its interior and exterior." It will also offer services to "maintain the interior and exterior of the mansion and may provide period pieces of furniture for display." The Preservation Corporation will facilitate but not implement loans of historical items to the Mansion, and may offer pieces of its own for display in the Mansion.

In addition to its other functions, The LeRay Mansion Utilization Plan will specifically outline volunteer job descriptions for volunteers supplied by the Corporation and clearly define the role of the Corporation with respect to operation and utilization of the Mansion. In addition, the historic preservation staff at Fort Drum Housing Division can provide information about in-service training, workshops, and continuing education to ensure that the work done by all volunteers is consistent with Fort Drum historic preservation goals, and where appropriate, follows the policies and procedures of the Curation Methodology.

Curation Methodology for Historic and Prehistoric Sites on Post

The preservation and protection of the cultural resource sites located on the Fort Drum Military Reservation is a challenging responsibility. There are presently almost 1000 identified historic and prehistoric sites on the reservation, and this number is expected to increase. The mission statement points out that a priority for the ACF is to manage information about these resources to review the effects of military activity, construction projects, or timber sales. However, unauthorized activities by military and civilian personnel as well as extreme weather conditions continue to pose problems for maintaining the integrity of existing sites.

The Fort Drum Historic Preservation Plan outlines surveillance methods for annual inspection of identified cultural resources. In addition, the Archeologist's office has been responsible for determining the eligibility of sites and to recommend fencing and posting many of the identified sites. The Fort Drum Archeologist is also making an effort to educate the military and civilian employees of the Fort about the regulations concerning trespassing and collecting artifacts on federally owned cultural resource sites.

9 Summary

Federal regulations require the U.S. Army to investigate, evaluate, and recover data and material from historic properties that could be affected as a result of Civil Works undertakings. The historic preservation process does not conclude with the recovery and interpretation of archeological and historical data. It also includes long-term curation and management of collections and associated documentation.

This study was commissioned by Fort Drum to help its Environmental Division meet the challenge of curating Fort Drum's extensive archeological collections. Archeological survey and mitigation required to expansion the post beginning in 1985 has left Fort Drum with approximately 1000 boxes of artifacts that must be curated in compliance with 36 CFR 79. The available space to store these objects and records consists of World War II (B-74) barracks buildings, which has been retrofitted to become suitable areas for curation activity.

At Fort Drum, the responsibilities for historic preservation fall within the Environmental Division of the DEH. A draft Fort Drum Historic Preservation Plan (HPP) has been in place for the Fort for several years and is currently being revised and updated. The Curation Methodology describes the management plan for the Fort Drum Artifact Curation Facility, and on its completion, will be a part of the official HPP.

In 1985, the firm of Louis Berger & Associates was awarded contracts through the National Park Service to begin the necessary survey and excavation. By 1991, these activities had yielded approximately 1000 boxes of artifacts and associated records that required curation. During the latter part of the same period, the Fort Drum archeologist was putting together an Historic Preservation Plan, which included as one of its priorities establishing an artifact curation facility in compliance with 36 CFR 79.

The Fort Drum ACF Prototype is important because it combines goals of artifact preservation and conservation with preservation and adaptation of historic structures. Successful retrofitting of B-74 buildings has the potential for providing efficient, low-cost artifact storage space throughout the various service branches. Use of buildings already present on military bases also keeps local collections within their regions, making them available for researchers and interested members of the surrounding communities.

It is also helpful for artifacts, site records, and cultural resource reports to be curated and readily available to the post archeologist or cultural resource manager. Construction projects, military training activities, and timber harvest sales all require cultural resource clearances in accordance with pertinent laws and regulations. Access to this information enables the CRM to supplement GIS models in reviewing project proposals, in suggesting locations that will have a low impact on cultural resources, and in projecting where further cultural resources are likely to be located.

In addition, a post archeologist will do field work annually in the process of clearing projects and plans for area development. Onsite curation also is a cost-effective way to curate artifacts and records generated by ongoing cultural resource research on post.

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Abbreviations and Initialisms

AAM American Association of Museums

ACF Artifact Curation Facility

AKA Also known as

AR Army Regulations

ARPA Archeological Resources Protection Act

AASLH American Association for State & Local History

CHIN Canadian Heritage Information Network

CFR Code of Federal Regulations

CID Criminal Investigation Division

CRM Cultural Resource Manager

DEH Directorate of Engineering & Housing

DOD Department of Defense

ER Engineers Regulations

FORSCOM U.S. Army Forces (Major) Command

GIS Geographic Information System

HPO Historic Preservation Officer

HPP Historic Preservation Plan

LBA Louis Berger Associates

LI	Light Infantry
LMPC	LeRay Mansion Preservation Corporation
NAGPRA	Native American Graves Protection and Repatriation Act
NHPA	National Historic Preservation Act
NYSM	New York State Museum
OSM	Office of Safety Management
PAO	Public Affairs Office
PMO	Provost Marshal Office
PVA	Polyvinyl Acetate
RH	Relative Humidity
SUNY	State University of New York
USACERL	U.S. Army Construction Engineering Research Laboratories
U.S.C.	United States Code
UV	Ultraviolet Light
VOQ	Visiting Officer Quarters

Appendix A: Definition of Associated Records

From: United States Army Corps of Engineers Project Operations, ER 1130-2-433, *Collections Management and Curation of Archeological and Historical Data*

Definition of Associated Records

Associated records consist of original records or copies thereof that are prepared or assembled and document efforts to locate, evaluate, record, study, preserve or recover materials from any property of cultural value. Some records such as field notes, artifact inventories and oral histories may be originals that are prepared as a result of the field work, analysis, and report preparation. Other records such as deeds, survey plats, historical maps and diaries may be copies of original public or archival documents that are assembled and studied for historical research. Classes of associated records and illustrative examples that may be in a collection include, but are not limited to:

1. Records relating to the identification, evaluation, documentation, study, preservation or recovery of a resource, such as site forms, field notes, drawings, maps, photographs, slides, negatives, films, video and audio cassette tapes, oral histories, artifact inventories, laboratory reports, computer cards and tapes, computer disks and diskettes, printouts of computerized data, manuscripts, reports, and accession catalog and inventory records.

2. Records relating to the identification of a resource using remote sensing methods and equipment, such as satellite and aerial photography and imagery, magnetometer, subbottom profilers, ground penetrating radar and fathometers.

3. Public records essential to understanding the resource, such as deeds, survey plats, military and census records, birth, marriage and death certificates, immigration and naturalization papers, tax forms and reports.

4. Archival records essential to understanding the resource, such as historical maps, drawings and photographs, manuscripts, architectural and landscape plans, correspondence, diaries, ledgers, catalogs and receipts.

5. Administrative records relating to the survey, excavation or other study of the resource, such as scopes of work, requests for proposals, research proposals, contracts, antiquities permits, reports, documents relating to compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. 470f) and National Register of Historic Places nomination and associated forms.

Appendix B: Computer Files and Fields

Information Architecture Plan

At the beginning of work on a plan for automated collections management, the Canadian Heritage Information Network (CHIN) was contacted. The Canadians have made impressive progress toward development of a nationwide artifact data base. They were able to provide excellent information on how to plan carefully for computer use in collections management. Their expertise applied not only to efficient collections management within one facility but also to developing the potential for sharing information between collections.

The Canadian consultants were adamant that careful planning for automated collections management requires the development of detailed specifications defining the computer's role as a tool for the museum manager or curator. They shared several examples of information architecture plans they had worked on including *The Virginia Museum of Fine Arts Information Systems Framework* and the *Analysis of the Collection Documentation for Musee des Augustines de L'Hotel-Dieu de Quebec.*

The Canadian model suggested some fundamental questions about the intended role of the computer:

1. What kinds of files would be necessary to fulfill the mission of this repository?

2. What kinds of records would be required within the files?

3. What kinds of other services would the computer be expected to provide?

4. What would be the qualifications of the individuals who would be entering data and using the system on a regular basis?

5. How would the users of the system be trained?

6. What would be the procedural controls for backing up, maintaining, and improving the system?

7. Would there be sensitive data in any of the files, and how would access to it be controlled?

At Fort Drum, it quickly became clear that there were going to be two basic types of required informational files. One set was required for collections management purposes and the other would contain the data useful for people doing research using the repository collections. Users of the repository would require access to both types of files since the collections management files would provide the information needed for finding objects within the collections. Files containing sensitive information about the location of archeological sites or information about the value and storage locations of collectable artifacts would be accessed only with the written authorization of the Fort Drum Archeologist or a representative of the Environmental Division in accordance with 36 CFR 800.

Collections management files would need to be locked so that no changes could be made without authorization and knowledge of Curation Facility staff. However, if experience with use of the repository is positive, it could be hoped that researchers using the collections could be given opportunities to add information to the research files.

To implement computerized collections management, the data would need to be input into the files, and the staff would need training in use of the system. FOXPRO® is very easy to use, and technical staff would be working under the direct supervision of curatorial or archeological staff with more experience. Teaching would take place on a one to one basis with curation staff. Sample inventories and finding exercises could be used to test the system. At a point where the system would begin to operate on a day-to-day basis, file maintenance procedures could be established for keeping files and their backups up-to-date and for updating temporary or inactive files. The effectiveness of the system should then be evaluated at regular intervals and modified accordingly.

At this point it should be emphasized that the collections management files are set up for tracking artifacts and to help researchers find artifacts. With management and not research as the immediate goal, setting up elaborate coding systems would be counter-productive. In addition, most curation facilities will not have experienced archeologists or archeology laboratory technicians available to code large numbers of artifacts accurately. As a result, it was decided to rely on memo fields to describe the artifacts. Even an inexperienced curation technician can describe an artifact very quickly in a memo field, and researchers needing specific kinds of objects can scan and search memo fields quickly. It is important to keep in mind that an inaccurately coded object could be lost within the system indefinitely.

Other Computer Services and Capabilities

The following list was generated in response to the question about other services the computer is expected to provide:

1. Scheduling and Repository Activities Files

2. Interface with Fort Drum Mapping Projects and the GIS model for areas identified as archeologically sensitive

3. Management of the Repository Budget
   a. Long and Short Range Budgeting
   b. Capability to Project Budget from Collections Activities

4. Word Processing for Repository Staff Members—Word processing would need to interface with collections management files for easy generation of periodic reports on all collections management activities

5. Word Processing for Public Relations and Research—newsletters, press releases, research publications

6. Graphics Capability for Exhibit Label Production

7. Digital Storage of Maps and Renderings

8. Administration—Personnel Management, Record Keeping

9. Indexing and searching capability through the files

10. Ability to enable researchers to add to data files without risking the integrity of file information and structure established by the repository staff

Software Selection

It was decided to use FOXPRO® 2.5 to manage the collections and research files as recommended by USACERL. Besides being a powerful database manager, FOXPRO® offered the capability of importing images into the memo fields. FOXPRO® also provided excellent report creation capabilities that could interface effectively with word processing software for the facility's other needs.

Collections Management Files

Collections Management: Site File and Source File

1. Fiscal year
2. Accession group number
3. Site name
4. Fort Drum site number
5. New York State Site registration number
6. New York State museum site registration number
7. Any other assigned number
8. Project identification
9. Excavator
10. Site and/or source description memo field
11. Source identification
12. Street
13. City
14. State
15. Zip code
16. Phone number

Collections Management: Permanent Accessions File

1. Accession number
2. Date accessioned
3. Source of the object
4. Project or property where clearance was required
5. Brief description of the object and its condition
6. Storage or exhibit location
7. Initials of staff member who processed the object
8. Ownership of the object

Documentation. The accession number is the primary tracking tool for objects once they become part of the curation facility collections management system.

The accession number consists of the following numbers separated by periods ".".

1. The year the object was accessioned using all four digits.

2. The group number of the group being accessioned. This number is assigned by assigning consecutive numbers to the groups of objects being accessioned for that

year. There is an additional computer file that references cultural resource site numbers and other sources of material where group number assignments are recorded.

3. The number of the object within the group or provenience designation or catalog number as assigned by an archeological contractor.

4. The number of an object within a series of objects sharing the same catalog number as assigned by an archeological contractor.

5. The lower case alphanumeric designation of a piece of a larger object or a group of related objects.

Date accessioned is set up in a date format and should be the date the object was processed and entered into the file.

The source of the object is a general category with a limited choice of variable entries: Archeological Contracts "CONTRACT", Purchased "PURCHASE", Donated "GIFT", Found on Post "FOP", Loan "LOAN", and Curation Contract "CURCON". Each of these entries will be backed up by the appropriate forms or paperwork in the paper accessions file.

Project or property refers to the activity that generated the need for an archeological survey or to the specific location on Fort Drum to which the object is directly related. Examples would be LeRay Mansion, the Washrack Facility that generated at least three prehistoric sites during cultural resource survey of the area, timber harvest surveys, or farmstead names for areas cleared during road and cantonment construction.

The object description is set aside in a memo field. It is important that the precise identification of the object be listed first in capital letters. Preferably this identification can be made using the nomenclature reference or using basic archeological artifact terminology. A designated number of characters from the beginning of the memo field can be printed in FOXPRO® reports so listing the artifact identification up front is very useful. This memo should also include a description of the condition of the object.

Storage location should include building designation, floor, shelf number or designation, and location on the shelf.

Staff is three initials, designating the staff member who entered the object into the accessions file.

Ownership of the object refers back to accessioned versus registered objects. The official owner of the object is designated here—Fort Drum ACF, the LeRay Mansion Preservation Corporation "LMPC," which is the source of some furniture loans to the mansion, and acronyms designating other facilities who may be sending objects on curation contracts.

Collections Management: Environmental Monitoring File

1. Storage location
2. Monitoring equipment identification
3. Date begun
4. Date complete
5. Ultraviolet light
6. Footcandles
7. Evidence of pest invasion (room for three descriptors)
8. Hygrothermograph chart number
9. Chart storage location
10. Scanned entry of the chart into the memo field

Collections Management: Security/Public Access File

1. User's name
2. Business or institutional affiliation
3. Street
4. City
5. State
6. Postal code
7. Telephone number
8. Topic or project
9. Date of use

Collection Research Files

Object Catalog File

When an item is catalogued, the following information will be collected and entered into the Curation Facility catalog data file:

1. Accession number
2. Catalog number

3. Object identification
4. Medium, material, or type
5. Maker
6. Earliest possible date
7. Latest possible date
8. Length in cm
9. Width in cm
10. Height in cm
11. References Memo—to include catalog numbers of any associated field notes, maps, site records, photographs, and/or associated references
12. Grid
13. Exact provenience
14. Depth from
15. Stratum
16. Feature
17. Date of excavation
18. Source other than excavation or excavation contractor
19. Initials of the cataloguer

Accession Number is entered in a character field. The procedure for assigning an accession number is described in the text. Example: 1993.4.2

Catalog Number is also entered in a character field, and assignment is also described in the text. Example: A-O45-11-0001.6.001.

Object identification needs to be done in one or two words at the most. The nomenclature reference will be useful here.

Material provides an opportunity to identify the class of materials from which the object is made—ceramics, pottery, glass, brick, metals, stone, bone, horn, plastics, antler, ivory, leather, textile, shell, wood, soil samples.

Maker—artist, artisan, craftsman, factory if known, if not cultural affiliation—prehistoric, "Hopewell" or "St. Lawrence Iroquois," for example.

Earliest possible and latest possible dates—entered into date codes if known.

Dimension measurements in centimeters.

References will be entered in a memo field using their assigned catalog numbers, see also paper cataloguing procedures. This memo field will tie the artifacts to the associated paper records.

Grid—grid number or square within which the artifact was found

Exact Provenience—location of shovel test or specific region of the site

Depth from—depth where the object was found in relation to a designated datum point assigned to the site

Stratum—if strata were assigned within the site, the strata within which the artifacts were found would be designated here

Feature—if the artifact were found in association with a specific feature like a hearth, or cistern the feature would be listed

Excavation Date or the date when the artifact was excavated would be entered from the field notes or the field tag into this date field

Initials of the Cataloguer, three characters

With respect to cataloguing, it should be noted that the artifacts supplied by Louis Berger & Associates have already been catalogued in files set up in RBaseV®. Whenever possible, the Fort Drum ACF will respect and use catalogs previously set up for component collections. In cases where items are already catalogued, artifacts will be assigned accession or registration numbers when entering the Fort Drum collections management system and accession files will be set up. In addition, accession numbers will be added to pre-existing catalog files for indexing and cross referencing purposes. The site records associated with the Berger collections will require archival cataloguing using the system described below.

Paper Catalog File

1. New York State site number
2. Fort Drum site number
3. Group number
4. Brief cultural context id (for nonarcheological materials)
5. Folder type
6. Folder number
7. Folder identification

8. Brief description of folder contents
9. Storage location
10. Initials of the cataloguer

Site Number—New York State site registration number or New York State Museum number

Fort Drum Site Number—Fort Drum Historic or Prehistoric site numbers

Group Number—Year and chronological number of the group of materials accessioned for that year. This number matches the first two entries of the accession number, and will match those entries for the accession numbers of the artifacts that go with the site records

File Type—Entry fits the categories (1-6: Administration, Background, Survey, Excavation, Analysis, Photography, and Report), "ADM", "BKG", "SUR", "EXC", "ANL", "PHO", and "RPT"

Folder Number— Chronological entry for type of folder, begins with 001

Folder Description—Memo field where folder contents, amount, and condition can be described in detail. A brief identification of what the folder contains should be in caps at the beginning of the Memo so that it will appear in any printed reports generated from the catalog. Providing a memo field should prevent a less experienced cataloger from spending excessive time attempting to summarize folder contents in an abbreviated identification field

Storage Location—Shelf number and location on the shelf of a box of records or location of a file and within the file drawer

This database is set up so that there is a file entry for each folder.

Catalog File for Archeological Proveniences Used by Louis Berger & Associates

1. Accession number
2. Site number
3. Catalog number
4. Phase
5. Trench
6. Other
7. Unit number

8. Transect
9. S/P—"S" for shovel test, "P" for post hole
10. STP/PH Designation (STP stands for shovel test, PH for post hole)
11. Strata
12. Level
13. H/Q—"H" for half, "Q" for quad
14. Feature
15. Strata
16. Level
17. H/Q
18. Type—Material Group, see also Berger Codes, Appendix B
19. Subtype—further description of the object in the group, see also Berger Codes
20. Count
21. Weight
22. Beginning date—earliest possible date
23. End date—latest possible date

24 - 37. Variables dependent upon artifact type, see also Berger Codes

38. Function
39. Comments
40. Initials of cataloger
41. Box or bag number
42. Associated photograph or image numbers
43. Associated References

Appendix C: LBA Cataloging Codes

Louis Berger & Associates has developed a code book for numerically describing artifacts in great detail. These codes are an integral part of Berger's computerized cataloging system. For more information about their system it would be appropriate to contact:

Louis Berger & Associates
Cultural Resources Group
100 Halsted Street
P.O. Box 270
East Orange, New Jersey 07019
tel. 201/678-1960, X727
FAX 201/678-3427

The system is set up in the following way. First, Berger divided the artifacts into twelve groups that applied to the materials found at Fort Drum:

1. Kitchen
2. Architecture
3. Furnishings
4 Arms
5. Clothing
6. Tobacco Pipes
7. Activities
8. Prehistoric
9. 20th Century
10. Faunal
11. Floral

A more specific series of artifact classes was set up in the groups and assigned numbers. For example, kitchen artifacts in group (1) above could be divided into:

1. Ceramics
2. Bottles
3. Tumblers/Wine Glasses

4. Kitchenware (Other utensils, bowls, pots, etc.)
5. Miscellaneous Glassware
6. Tableware
10. Kitchen—Other

Furnishings in group (3) could be divided:

21. Lighting Related
22. Furniture Hardware and Pieces
23. Furniture Decorative
30. Furniture—Other

It should be noted that no two artifact classes have the same number even if they are from different groups.

Within the classes, Berger has further assigned typologies. For instance, Ceramics were divided into earthenwares and stonewares. Earthenwares, for example, were further divided into: CER01 Redbodied, unglazed, CRP35 Pearlware, underglaze blue hand-painted, and other similar categories.

Modifiers were then added to the typologies. Modifiers for ceramics included, makers' marks, wear, motifs and patterns, form, percentage complete, and comments.

Glass typologies included bottle glass, table glass, and lighting glass. Modifiers within these typologies include: makers' marks, mold type/manufacturing technique, color, finishes, lead/nonlead, and comments. Window glass was a typology included within the architectural group.

Other typologies were set up within the other artifact groups and classes in a similar fashion. In summary, the hierarchal categories for the Berger system used at Fort Drum were:

- Group
- Class
- Typology
- Modifiers.

Until a coding system has been agreed on throughout the profession, archeologists are free to set up hierarchical coding systems that fit the collections with which they are working. When using a coding system, it is critical that the code assignments and the

structure of the system be readily available to any other researcher or curator who may wish to work with the collection.

Appendix D: Flowcharts for Collections Management Procedures

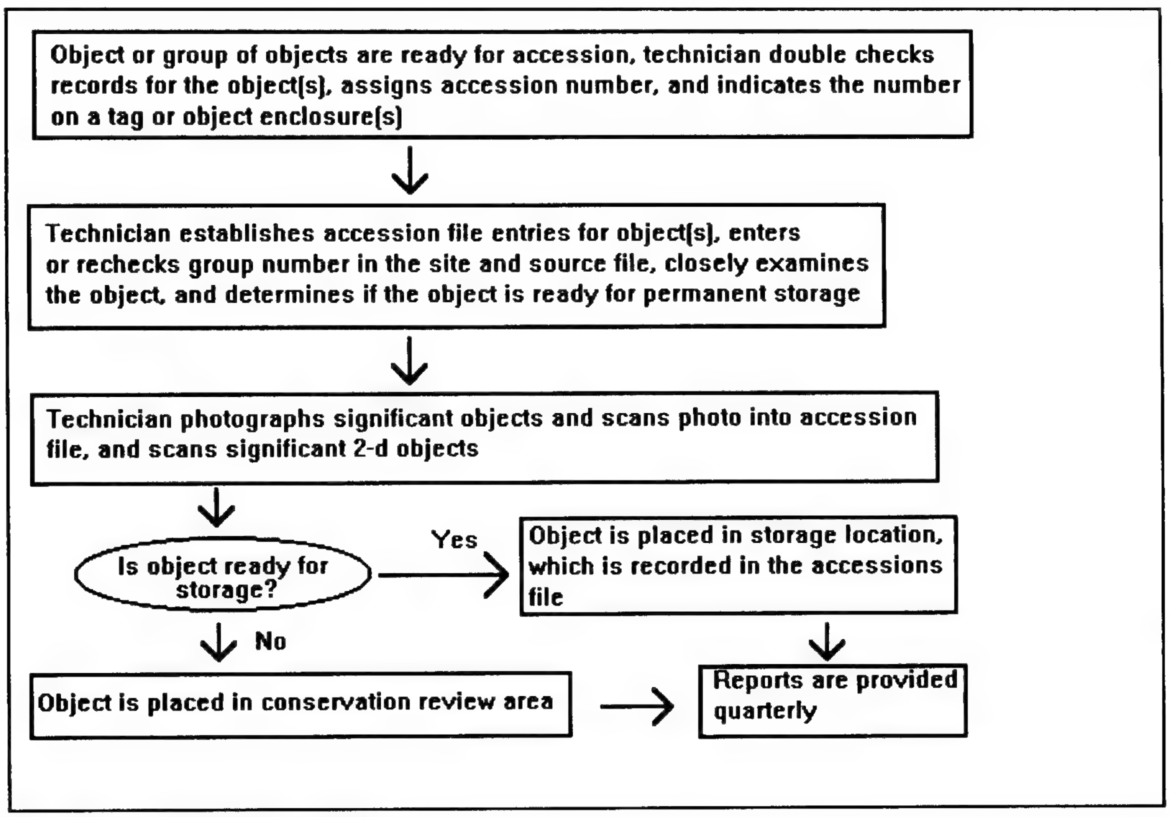

Figure D1. Accessions procedure.

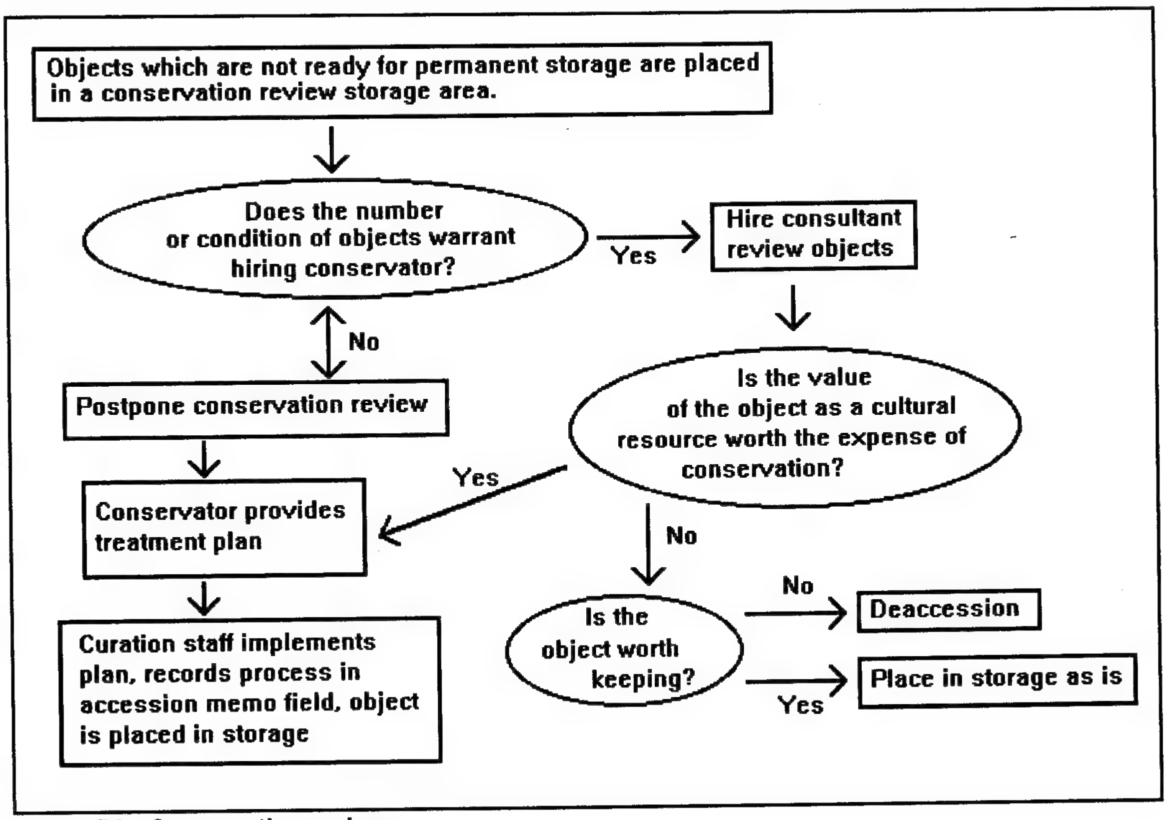

Figure D2. Conservation review.

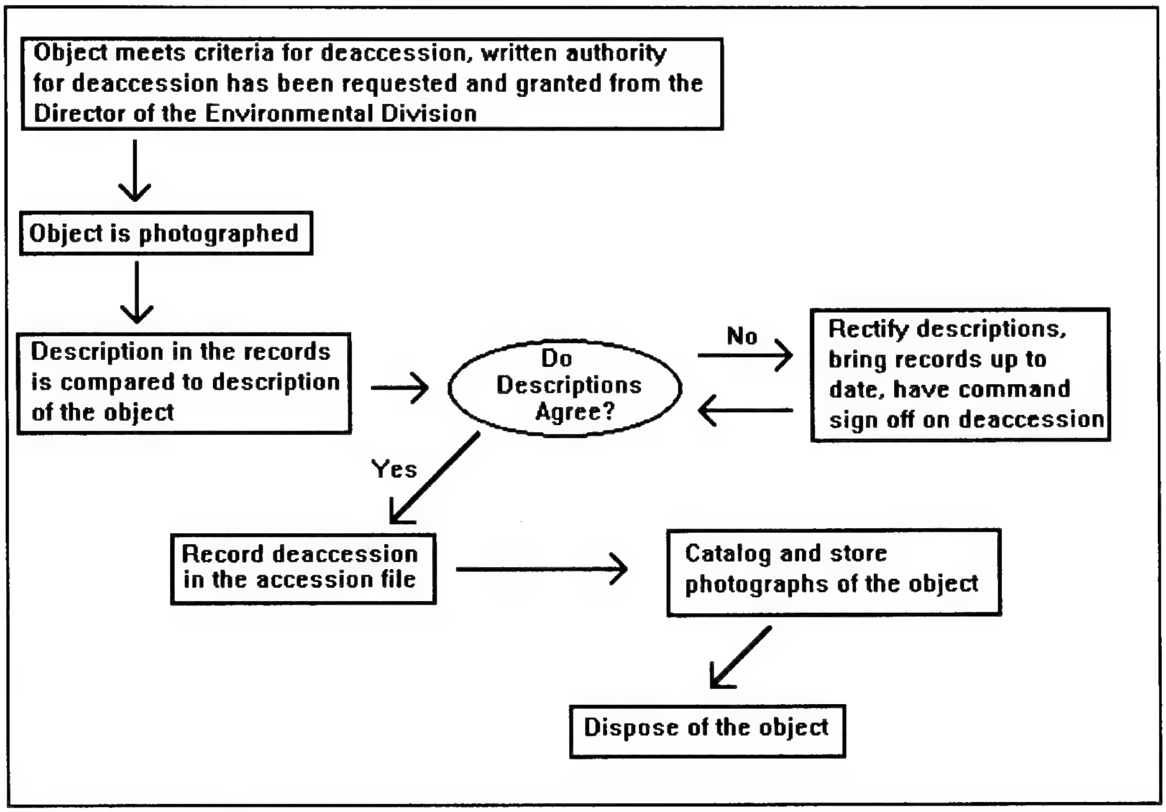

Figure D3. Deaccessions procedure.

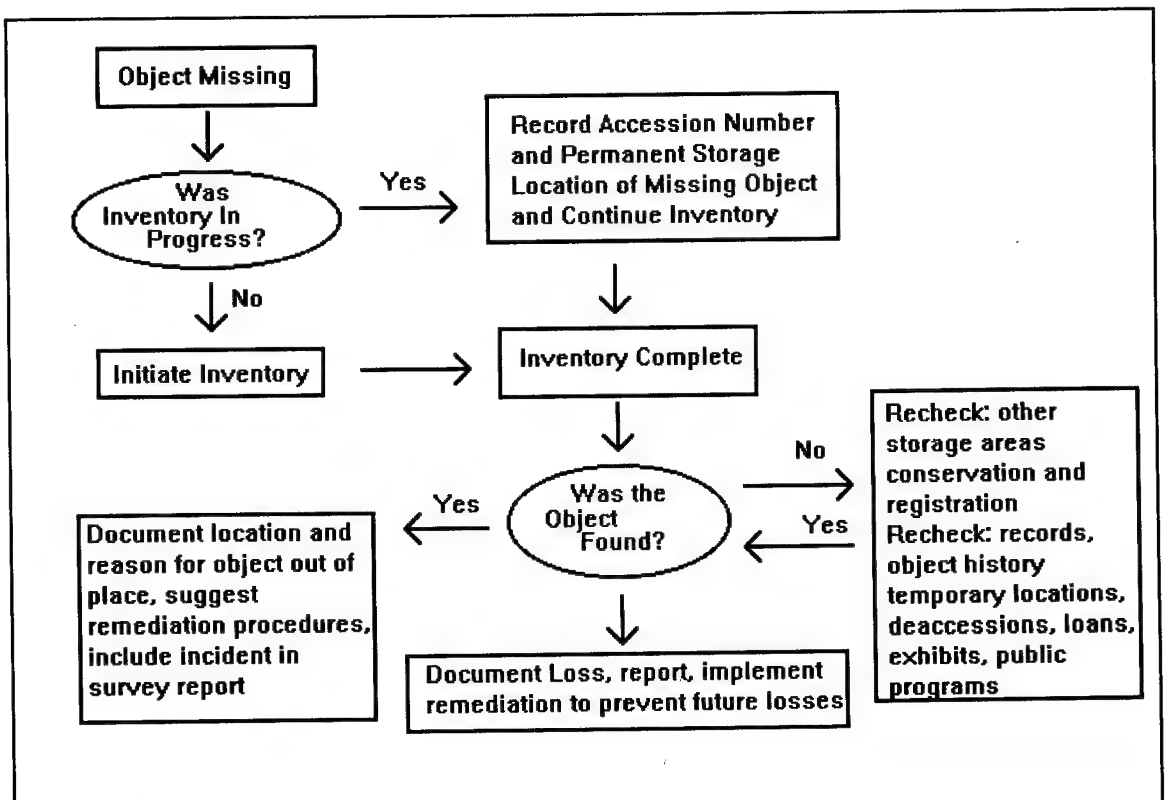

Figure D4. Object loss procedure.

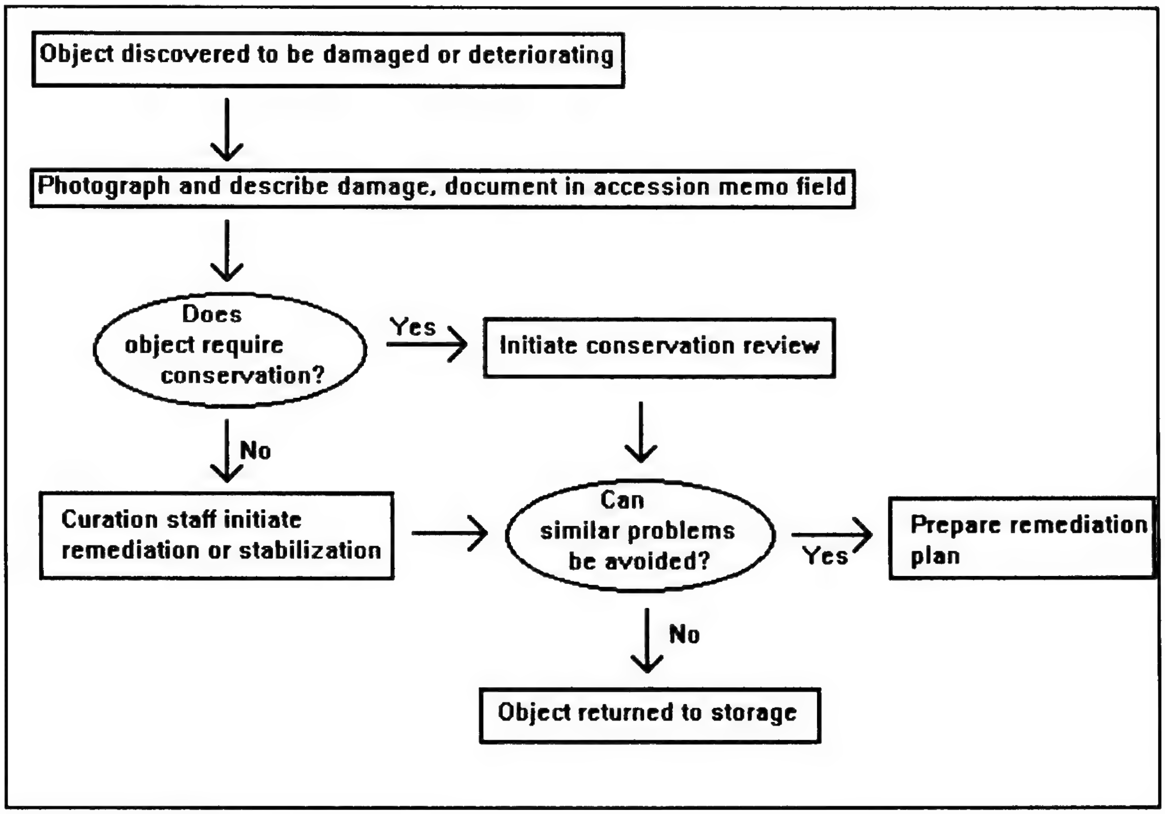

Figure D5. Object damage procedure.

Appendix E: Conservation Supplies—Sources

Note that the following list represents a sample of resource organizations and does not constitute an endorsement of any particular supplier. This list is included as a public service; more current or specific information is generally available.

Associated Bag Company
(Polyethylene Bags & Products)
400 W. Boden St.
Milwaukee, WI 53207
(414) 769-1000

BMS Catastrophe, Inc.
(Disaster Recovery and Vacuum Freeze Drying)
1000 Forest Park Blvd.
Fort Worth, TX 76110
(800) 433-2940

Conservation Materials, Ltd.
(General Conservation Supplies, Environmental Monitoring Equipment)
1165 Marietta Way
PO Box 2884
Sparks, NV 89431
(702) 331-0582

Conservation Resources International
(Archival Storage Supplies, Phase Boxes)
8000 H. Forbes Place
Springfield, VA 22151
(703) 321-7730

Duro-Test Corp.
(Hard Plastic UV Filters, Durogard Safety Shields)
2321 Kennedy Boulevard
North Bergen, NJ 07047
(201) 867-7000

Fisher Scientific Co.
(Ethanol, General Chemical Supplies, Monitoring Instruments)
461 Riverside, P.O. Box 379
Medford, MA 02155
(617) 391-6110

Gaylord Bros., Inc.
(General Conservation and Photographic Supplies)
Box 4901
Syracuse, NY 13221
(800) 448-6160)

Hollinger Corp.
(Archival Storage Supplies, Custom Boxes)
3810 So. Four Mile Run Dr.
P.O. Box 6185
Arlington, VA 22206
(703) 671-6600

International Light Co.
(UV Light Meter)
Dexeter Industrial Green
Newburyport, MA 01950
(508) 465-5923

Light Impressions
(General Conservation and Photographic Supplies)
439 Monroe Ave
P.O. Box 940
Rochester, NY 14603
(716) 271-8960

LPS Industries, Inc.
(Pockets for Enclosing Labels)
113 N. 13th St.
Newark, NJ 07107
(800) 225-1244

Moisture Control Services
(Disaster Recovery, Humidity Control, Dehumidification, Drying)
Mill River Park
20 Del Carmine St
Wakefield, MA 01880
(617) 245-6021
or
198 Green Pond Rd.
Rockaway, NJ 07866
(201) 625-7458

Preservation Products Catalog
(General Conservation Supplies)
P.O. Box 1768
Rochville, MD 20849
(301) 309-2222

RE-Oda Chemical Engineering
(Smoke Damage Recovery)
100 Industrial Parkway, P.O. Box 424
Chagrin Falls, OH 44022
(216) 247-4131

Solar Screen Co.
(UV-filtering Products)
53-11 105th St.
Corona, NY 11368
(212) 592-8222

Talas
(General Conservation Supplies)
213 West 35th St.
New York, NY 10001
(212) 592-8223

Taylor Made Company
(Mylar Pouches)
P.O. Box 406
Lima, PA 19037
(215) 459-3099

Test Fabrics, Inc
(Muslin)
200 Blackford Ave, P.O. Box 420
Middlesex, NJ 08846
(908) 469-6446

University Products
(General Archival and Conservation Supplies, Tools, UV Filters)
P.O. Box 101
South Canal St.
Holyoke, MA 01041
(413) 532-4277

Appendix F: Volunteer Management

Volunteer Management

As a curator plans the day-to-day operation of a curation facility, it should become clear whether any of the work to be done would lend itself to volunteer assistance. Given the tedious and repetitive nature of processing archeological material and cataloging collections, the advantages of including volunteer staff in curation facility would outweigh the disadvantages. At Fort Drum, all volunteer activities shall be coordinated with the Installation Volunteer Coordinator (DPCA, Family Services).

Components of a Volunteer Job Description

Since the need for volunteers would be defined by job responsibilities for successful operation of the facility, a critical component of planning for volunteers is development of job descriptions. A job description for a Fort Drum ACF volunteer should include:

1. Job title
2. A Description of the job responsibilities
3. A List of any special skills, education, or training required
4. Any required application materials—resume, letter of reference depending on the level of responsibility and availability of close supervision
5. Time commitment
6. Who the volunteer would be working with and for
7. Potential benefits to the volunteer

Sources of Volunteers

Sources of volunteers include:

1. The Community

2. The Installation—Military wives organizations have traditionally offered volunteer services. The volunteer coordinator should cooperate with the

Installation Public Affairs Office, Installation Volunteer Coordinator, or any installation volunteer office in recruitment efforts.

3. Secondary and university students, interested in museum careers and training

Volunteer Application Criteria

A successful recruitment effort should result in a group of volunteers to be interviewed and evaluated for placement. The curation facility volunteer coordinator should review letters expressing interest in the volunteer position and any required application materials. In addition, useful questions to ask during a volunteer interview could include:

1. Vital statistics—name, address, phone
2. Past volunteer experience
3. Reason for wishing to volunteer
4. Time available

Training

Once volunteers are recruited, training and orientation is needed. The training and orientation program could also be used to help the curation facility volunteer coordinator become further acquainted with the volunteers and to do a final evaluation and screening of the individuals to make sure that they are the right people for the jobs described.

Elements of an Effective Volunteer Contracts

On the successful completion of training, the volunteers should be asked to sign volunteer contracts with the Curation Facility to formalize their working relationship. In addition, the paperwork enabling volunteers to work with artifacts should be implemented at this time. In a basic volunteer contract the volunteer agrees to:

1. Work an agreed on number of hours per week
2. If necessary, come to work on a specific day at a specific time
3. Accept the job responsibilities
4. Accept guidance of the volunteer supervisor
5. Follow the policies of the organization and understand the structure

6. Participate in any needed training
7. Notify in advance of absence or termination

The Curation Facility should agree to:

1. Provide supervision and support
2. Provide needed training
3. Provide working conditions comparable to those for the paid staff
4. Evaluate performance and share evaluation with the volunteer
5. In cases of good or exemplary performance to provide any requested letters of recommendation for the volunteer

Evaluation and Recognition

As the volunteer program progresses, the curation facility volunteer coordinator should provide meaningful evaluation of the volunteer's work and recognize that there may be situations where a volunteer may require a different job assignment or possibly termination.

A successful, ongoing volunteer program requires record keeping. The volunteer coordinator should keep track of hours worked and significant accomplishments. There should also be meaningful recognition of volunteer service to the facility. Pins, certificates, meals, gifts, or special events are all meaningful ways to recognize volunteers.

Appendix G: Disaster Plan

Copies of this disaster plan will be placed in bright red notebooks on both floors of the curation facility as well as in the Environmental Division and the Natural/Cultural Resources Branch. Disaster planning at the Fort Drum ACF shall be coordinated with installation fire and safety personnel.

Authority and Delegation

In an emergency, the Fort Drum Environmental Division authorizes implementation of this disaster plan and the most responsible person designated below to take charge and undertake any action necessary to preserve life and assets of the Fort Drum ACF. If the designated individual is not available, then the next person available on the following list is in charge. Within this disaster plan, only position titles and official names have been included. Individual names and various phone numbers will need to be added.

1. Chief, Environmental Division: 315/772-5708; DCTN 341-5708
   FAX: 315/772-5080

2. Natural and Cultural Resources Branch Chief, Environmental Division: 315/772-5971; DCTN 341-5971

3. Fort Drum Archeologist: 315/772-4165; DCTN 341-4165

4. Curator, Curation Facility: ______________________________

5. National Environmental Policy Act Coordinator: 315/772-5110; DCTN 341-5110

In an emergency, human life and safety is more important than the collections and material assets of the Fort Drum ACF.

No action is to be taken that endangers life or safety.

Emergency Phone Numbers:

Fire Department: 117, 772-9999
Military Police: 116, 772-5777
Ambulance/Rescue Squad: 118, 772-5333
Poison Control Center: 1-800-252-5655
Utilities:
- Niagra Mohawk: 788-2200
- Water: 772-5589 or 772-4168
- Preventative Maintenance: 772-5601

Animal Incidents:
- Fort Drum Fish and Wildlife Officer: 772-5971
- New York State, Department of Environmental Conservation: 778-2020
- Fort Drum DEH Work Order Branch: 772-5495

External Assistance Phone Numbers:

Architect: 1-800-USA-CERL
Conservator: ______________________________
Electrician: 772-5300
Equipment Rental: C & M Technologies, 782-3000
SpaceSaver™ Shelving: 716/924-1430, 716/729-2942
Freezer Facility (Mountaineer Inn, NCO Club):
Storage Space: Troop Operations, 772-5250, 772-6235

Mutual Aid Institutions Phone Numbers:

New York State Historic Preservation Office: 518/237-8643
Jefferson County Historical Society, 782-3491
St. Lawrence County Historical Society, 386-8133
New York State Museum, 518/474-5813

Staff Recall List:`

Leader: Natural and Cultural Resources Branch Chief,
Environmental Division: ______________________________
Security and Safety: Representative, Military Police, 772-5777
Buildings and Grounds: 315/772-5694
Public Relations: Public Affairs Office, 315/772-5461

Fire Suspected or Discovered:

Sound the alarm and initiate the evacuation procedure:

1. Calmly advise others to leave area by nearest safe exit
2. Assist people requiring help
3. Go to a designated assembly area
4. Account for all people
5. Call fire department: 117 or 772-9999
6. Tell fire department location and nature of the fire
7. Activate staff recall
8. Meet fire department on arrival
9. Advise fire or police officials of your actions
10. Advise fire or police officials if someone needs special assistance
11. Re-enter only with permission from the fire department

If arson is suspected:

1. Look for multiple sources of fire and suspects at the scene
2. Advise fire or police officials of suspicions and observations

If collections are damaged:

1. Call Conservator
2. Re-establish fire protection systems
3. Create a written record of the event, submit report to the Environmental Division

In case of theft:

1. Advise—Chief, Environmental Division, 772-5708
   Fort Drum Archeologist, 772-4165
2. Call military police, 116 or 772-5777
3. Protect scene, identify suspects and witnesses, record details
4. Meet police on arrival
5. Provide police with detailed descriptions—item(s) and suspect(s). If collection objects have been stolen, provide photos and estimated dollar value and other information required to assist recovery efforts
6. Record details and police report numbers—for future reference
7. Secure building—as soon as police give approval, consult with police before releasing press release
8. Report to lenders or holders of curation contracts—if appropriate
9. Consult the Staff Judge Advocate's office if appropriate, 772-6369
10. Check with police on progress
11. If object is recovered and in police custody, offer to provide or offer to recommend safe environmental storage conditions

In case of missing collections:

1. Document when last seen
2. Search premises
3. Take inventory, check records
4. If appropriate, call police

In case of bomb threat (keep these guidelines near the phone), when a bomb threat is received:

1. Listen
2. Be calm and courteous
3. Do not interrupt the caller
4. Obtain as much information as you can
5. Questions to ask caller:
   What time will the bomb explode?
   Where did you place the bomb?
   What is it made of?
   Where are you calling from?
   What is your name?

Once you have hung up the phone:

1. Immediately call the local police with the following information:

Record: Date ___/___/___, time _____ am___ pm____

Duration of the call:

Exact wording of the threat:

Characteristics of the caller:

Sex:

Approximate age:

Language: Accent:

Speech: Diction:

Manner:

Background noises:

Did the caller sound familiar?

Did the caller sound familiar with the area?

Evacuation guidelines:

1. Consult person in charge to decide if you evacuate before police arrive
2. Search all exit routes before evacuating people
3. Call military police: 116, 772-5777

In case of personal assault:

1. Intervene if appropriate and safe to do so
2. Provide privacy, comfort, first-aid if required
   Staff resources (first aid certified): ____________________
   Call ambulance, if needed
3. Advise Chief, Environmental Division, 772-5269
4. Call police, 116 or 772-5777
5. Protect scene, identify suspects and witnesses, record details
6. Meet police on arrival
7. Record details and police report numbers for future reference
8. Consult staff judge advocate, if appropriate, 772-6369

Accidents and illness:

For rescue—call fire department 772-4131

For sudden illness or injury—
Staff resources (first aid certified): ____________________

Ambulance:

Notify: Fort Drum Archeologist, 772-4165
Chief, Environmental Division, 772-5269
Companions or associates of the victim, if the victim is a visitor to the curation facility

Complete an accident report including:

1. Identity of the victim
2. Names of witnesses
3. Symptoms
4. Treatments
5. Names of caregivers
6. Location and circumstances of the event
7. Photograph accident scene

Hazards

Take immediate action to remove or correct the problem or to control access if correction is not possible. If physical access cannot be controlled, provide supervision over the hazardous circumstances until remediation occurs.

In case of buildings/utilities failure (water, roof leak, water line break, rain):

As quickly as possible, identify source(s) and stop flow or channel it by shutting off valves, catching leak, covering roof, or caulking/patching area of infiltration. If necessary, use sump pumps or emergency pumps to drain flooded areas. Also use dehumidifiers.

In case of structural damage or collapse:

1. As soon as possible have an architect/engineer evaluate situation.
2. Determine if area can be safely occupied.
3. Stabilize to prevent further damage.
4. When safe, remove collections and other assets.
5. Protect area from rain damage and unauthorized access.

In case of failure in heating, ventilating, or air conditioning:

1. Try to determine how long the failure will last.
2. Prepare to mitigate freezing conditions.
3. Prepare to drain water lines to prevent breaks.
4. Limit opening and closing of doors to retain residual heat.
5. Try to moderate rapidity of changes in temperature and humidity.

In case of high heat:

1. Use natural cooling factors, close shutters, drapes, open windows.
2. Use portable fans to move air and portable dehumidifiers if necessary.
3. Vent building on upper levels.

In case of loss of power:

1. Ensure that security and fire protection and detection systems have switched to battery power.
2. Ensure that all emergency lighting and exit lighting also have switched to battery power.
3. Report power outage, Niagara Mohawk, 788-2200.
4. Ask how long power will be out.
5. Plan for staff security coverage if battery back-up systems will be expended.
6. If telephone is also out, use DEH radios for emergency communications.

To implement collections salvage first aid, the following are emergency recommendations intended only to stabilize objects until conservators arrive:

1. Segregate damaged and undamaged objects.
2. Remove and protect undamaged objects.
3. Keep damaged objects as they are.
4. If wet, keep them wet; if dry, keep them dry.
5. Place in cool, well ventilated space away from undamaged objects.
6. Examine daily for mold growth.

To treat wet prints and drawings:

1. Remove from frames.
2. If easily separated from mats, separate and air dry.
3. If not, air dry in mat.
4. Do not apply heat.

To treat wet books or documents:

1. Freeze as soon as possible.
2. Call conservator.

To treat wet metal, glass, or ceramic objects:

1. Air dry quickly.
2. If necessary, mop gently with clean, soft, dry lint-free cloth or paper.
3. A warm air blower, hair dryer, may be used on metals with caution.

To treat objects that have dried after being wet:

1. Keep in a cool, well ventilated place apart from undamaged objects.
2. Inspect for mold.
3. If mold is found, treat as wet objects.

To treat smoke damaged, scorched, charred, or dirty objects:

1. Handle as little as possible.
2. Do not try to clean.

Appendix H: Describing and Naming an Object

It is important to note that this methodology focuses on simple descriptions for accession purposes. Detailed object identification and cataloging for research purposes should be done by archeologists according to their training.

Describing the Object

Correction identification of the materials and accurate, precise statements of the dimensions, decoration, and condition of an object are essential to its description.

Materials

The same materials are used for such a variety of objects that identifying the material is a good place to begin the description. For this, some knowledge of mineralogy, metals, botany, zoology, ceramics and textiles is necessary. The registrar [or even curator] can hardly be expected to be an expert in all these fields, but should, if at all possible, examine other collections and discuss each type of material with an expert (even if only briefly), perhaps have a small sample collection for comparison, and always have a good unabridged dictionary. It is relatively easy to determine into what large category the material falls, but if the particular material is not recognized, its physical properties should be described, e.g., "Hard, dark green stone, highly polished," "porous, gray stone," "soft wood," "very hard, close-grained wood." With a little practice, however, more definite descriptions can be given.

Stone

Of the igneous rock, those most frequently found in archaeological collections are basalt, diorite, and pumice; of the sedimentary rocks, shale, sandstone, and limestone are most common; and the metamorphic rocks, gneiss, schist, quartzite, slate, marble, and serpentine. The appearance of some of these varies considerably with the locality. (For example, Chinese limestone and Northwest Coast slate differ markedly from the limestone and slate encountered elsewhere.)

Precise identification is sometimes difficult. For instance, relative hardness alone may not be enough to distinguish among various rock materials. The terms "flints" and "flint implements," for example, are used even though the substance may really be jasper. Actually, flint is translucent and is usually gray, black, or smoky brown in color; jasper is opaque and is usually red, yellow, or gray; chert has a hornlike appearance, but the name is also used for impure flints and jaspers. Descriptions of stone objects should explain not only material but also how the stone was shaped—by chipping, flaking, grinding—and whether the surface is polished. Stone tool identification should be left to the archeologist during the cataloging process.

Pottery

Pottery, terra-cotta, and brick are basically clay that has been baked. Pottery ranges from a lump of clay pressed into shape and slightly baked to the most exquisite vessels and sculpture. In describing pottery, the following should be noted; the color and texture of the ware (called by ceramists the "biscuit"); whether there is a slip or a glaze; how it was made, whether built up with coils of clay or shaped from a lump of clay either by hand or with the potter's wheel; how well it is baked; and whether there is any decoration.

The term "terra-cotta," which simply means "cooked earth," is used to describe the material of which architectural adornments such as antefixes are made. It is also used as a general term for any small figure of baked clay, whether god or human, animal or bird, miniature bed or chair, or other.

Prehistoric ceramics like the sherds in the Fort Drum collection can be described by color, thickness, tempering, and decoration. Once again, it is important to remember that research identification and cataloging of these artifacts should be done by an archeologist.

Brick is really the name of an object rather than a material. It is clay that has been formed into a comparatively small rectangular slab and dried in the sun or fired in a kiln for use in building. Depending on the degree and method of baking, it is termed "sun dried brick" or "brick." Either may be inscribed.

Glass

Glass is another material frequently encountered in anthropological collections. Glass is a substance that results from the fusion of a combination of silica (rarely boric acid) with various bases. It may be built up from coils or blown [or molded].

Metal

Metal objects may be hammered into shape, modeled from sheet metal, or cast. Most metals are easily recognizable and should be described by their common names. Bronze is the exception. Many metal artifacts, being historical in nature, are identifiable by laypersons. The nomenclature reference could be useful here.

Others

Ivory, bone, antler, horn, wood, shell, and coral are all well enough known to need little explanation. However, a few characteristics of each should be noted here. Ivory is of various kinds. The most common sources of ivory are elephant tusks. walrus tusks, and whale teeth. Ivory is more uniform throughout and therefore heavier than bone, which is porous inside or even hollow.

Antler is solid and rather like wood in appearance. Horn is hollow where it joins the animal's head but solid towards the tip; it has a rather oily feel and, when cut into a very thin sheet, is translucent, but otherwise can be easily be mistaken for wood.

Baleen, the material our grandmothers called "whalebone," is the horny material that comes from the fringelike strainer in the mouth of certain whales; whalebone in anthropological collections means any bone of the whale.

Shell, particularly the shell of the large tridacna clam, sometimes looks like stone; the distinguishing characteristics are that the outer surface is always slightly curved and that both inner surface and cross-section show its construction of many curved layers. Shell is very fine grained and takes a high polish.

Pearl shell and mother-of-pearl are usually thought to be light in color, but abalone is a darker iridescent blue to green. Coral, which is the skeleton of a tiny marine animal, contains principally calcium carbonate and is always white to red in color; it has a hardness of 3.5 and will take a high polish.

To identify the material of which textiles are made takes an expert's knowledge, but with a very strong magnifying glass, wool, linen, cotton, and silk can be distinguished relatively easily. Wool threads are scaled and curly; linen threads are almost straight; cotton has a twisted, ribbonlike structure; and silk has an even, fuzzy outline and is lustrous.

Naming the Object

In naming many archaeological and ethnological objects, everyday usage is followed, as for example, in speaking of a hat, dress, shoe, bow and arrow, sword, axe, chisel, knife, basket, or box . Frequently in addition to the English name, the native name is known and may either be substituted for or added to the usual name. The blouse worn by the Indian women of Guatemala today is called a "huipil"; an Eskimo woman's knife is an "ulu." Using these names saves considerable description, for each has a very definite meaning. Care must be taken, however, not to carry such names over into any other area simply because the objects from the two areas have a superficial resemblance.

Often the use to which a thing is put is indicated by the name, such as a sewing basket, a tool chest, a blacksmith's knife. However, there are many other things that, although they fit into one of the common categories, are peculiar to a certain area and have a particular name. While these terms, if known, are helpful to use, a simple description will generally suffice for object identification. But, again, great care must be taken not to imply a use that is not really known; therefore, "figurine" is usually a better term than "doll" or "idol," and "miniature vessel" is better than "model" or "toy." It is more important not to suggest cultural traits that do not exist; a nonagricultural people would not have a hoe or spade; a people with no knowledge of textiles would not have a spindle whorl or a loom weight.

Categories of Objects

Vessels

The names used for vessel forms are an important exception to the use of the everyday name for an object. Because vessels (archaeologically principally of pottery with some stone and metal and ethnologically of a variety of materials) form such a large and important part of the collections in a museum of anthropology, and because there is no consistency in the common usage, a nomenclature has been established in which the names of the basic shapes are determined by the relation of the mouth diameter

to the overall size of the vessel. The basic shapes are plate, bowl, pot, jar, bottle, and a high, wide-mouthed vessel for which there is no completely satisfactory name. There are particular names for certain group of objects of which extensive studies have been made, such as Attic vases and Chinese bronzes, but these should be used only in their original meaning unless the name has been generally accepted in other areas. The following names are applied to specific vessel shapes:

Plates.

- PLATE: a very shallow vessel, with a diameter at least eight times its height.
- SAUCER: a small plate.
- PLATTER: a very large plate, usually longer than wide.

Bowls.

- BOWL: a vessel with open mouth, the height never greater than the diameter and usually much less. If the height is less than one-third the diameter, it is a Shallow Bowl; if as great as the diameter, it is a Deep Bowl. It may have any number of handles, but a bowl with a very long handle is a Ladle or Scoop.

- STRAINER BOWL or SIEVE: a bowl, usually rather shallow, with many pierced holes in the bottom.

- GRATER BOWL: a bowl, usually rather shallow, the bottom interior deeply striated.

- MORTAR: a bowl with extremely thick walls; for use with a pestle.

- BOX: a bowl, usually deep, and usually with a cover, more often rectangular than round; nearly always with vertical sides.

- CUP: a small bowl, sometimes with one handle; occasionally used for a vessel with vertical sides and wide mouth, but if height is in excess of that proper for one for one of the bowl category, the vessel should probably be called a TUMBLER.

- GOBLET: a cup on a high foot.

- MUG: a deep cup, usually with flat base and straight vertical sides; with one handle.

Pots.

- POT: a vessel with slightly constricted mouth; the height and the maximum diameter are about the same, and the mouth diameter is at least half the maximum diameter; it may have any number of handles.

- COOKING POT: a crude, poorly made pot meant to be used over the fire.

Jars.

- JAR: a vessel whose apparent height is usually but not always greater than its diameter; the mouth is much more constricted than that of a pot; usually with a neck, which may be quite high, but may have only a spout opening directly from the body of the vessel; does not necessarily have handles but may have two or more (a jar with one handle is a JUG).

- STORAGE JAR: any very large jar.

- JUG: a jar with a single handle at one side; sometimes has a pouring lip but this is not essential.

- PITCHER: a jug with pouring lip; term not used for archaeological specimens.

Bottles.

- BOTTLE: a vessel with a very narrow mouth; usually, but not always, with a high, narrow neck.

- FLASK: a bottle meant to be carried, usually small and somewhat flat so the dimensions of the body are width and thickness rather than diameter; small neck and mouth; usually with some provision for the attachment of a carrying strap.

Sherd.

- SHERD: potsherd; a fragment of a vessel, usually of pottery but occasionally of stone; sherds are described as RIM SHERD, BODY SHERD, etc., of a particular type of vessel; sometimes it is possible only to name the ware of which the sherd is made; frequently it is possible to determine from it the exact shape and size of the whole vessel.

While the name of a vessel gives a general idea of its shape, it is necessary to add further description. Sometimes the description can be very simple, such as "hemispherical" or "truncated conical"; frequently it is very detailed. This description should follow a definite order, beginning at either the bottom or the top of the vessel (the former is usually more convenient) and at the conclusion mentioning such added parts as lid, handles, or spout.

The base is described as flat, flattened, rounded, ring, or having a foot or feet, which are described as hollow or solid, rattling, ball slablike, effigy, or a high ring.

The body is described as spherical, hemispherical, squat (spherical with top and bottom compressed), or lentoid in section; or, if no simple term applies, the sides are described as rounded or straight, as expanding to the shoulder, which may be high, wide, flat (on top), convex (on top); or perhaps expanding to the maximum diameter, which is below the middle of the vessel, and then contracting to the mouth or neck. The term "carnation" is used for the more or less sharp angle formed when the sides, which have expanded from the base, contract to the mouth.

The neck is described as wide, narrow (remembering that by definition the widest neck of a bottle is narrower than any jar neck), high, low.

The mouth is the vessel opening; the rim is the edge of the mouth. The rim may be wide or narrow, inturned, outturned, flaring, rolled, vertical, overhanging, or with pouring lip; and may have a crenelated or a serrated edge. The term "spout" is sometimes used instead of "pouring lip." but is preferably used only for one added to the vessel proper.

Handles may be "loop" (attached at both ends) and may be set on the shoulder, or vertically as from neck to shoulder or side of body, or horizontally; they may also be "strap" (a flat loop), "bail" (a loop handle over the top of a vessel, a bucket handle), or "ledge" (flat and projecting, usually horizontally); a "lug" is a small projection, sometimes pierced for the insertion of a carrying cord or for the attachment of a lid.

Ceremonial Objects

The very large category of ceremonial objects includes everything to do with a religion or a cult; dance paraphernalia (costumes, masks, musical instruments, wands); totemic objects; votive objects; amulets; fetishes and the tools of the medicine man. Each of these should be given its own proper name and described by use, as though it had no religious significance. The use of the term "ceremonial object" as the designation for

an individual piece is permissible only in the rare case of an object for which there is no better identification. The following are some types of ceremonial objects:

- AMULET OR CHARM: any object, usually small, that because of its form (as the figure of a god or sacred object), or because of its association, or because of some formula of blessing or cursing said over it, is thought to have power to protect or destroy.

- BEADS: The most common shapes are: ring, short tubular, tubular, disk, ball, barrel shaped, cylindrical (i.e., long narrow, slightly tapering to the ends), biconical, and irregular. Most of these can be faceted or fluted. The term STRING OF BEADS is used rather than NECKLACE unless it is definitely known that the beads were worn about the neck.

- PENDANTS: When spoken of in connection with beads, pendants are beads with the suspension hole at the top rather than through the middle.

- GORGET: A pendant, usually flat, worn on the breast.

- BANNERSTONE: An object found archaeologically in the eastern United States; rather flat, more or less rectangular with a greater width than height, the center section vertically pierced and flanked by two wings; was almost certainly used as an atlatl weight.

- BIRD STONE: Also found archaeologically in the eastern United States and may be an atlatl thumb rest; long and narrow with flat base and somewhat resembling a resting bird.

Appendix I: Describing Conditions of Works of Art and Artifacts

Condition of Works of Art and Artifacts, Terms:

- ABRASION (aka RUB, SCRAPE, WEAR): One type of Erosion: a surface loss assumed to be caused by friction.

- ACCRETION (aka INCRUSTATION): An accumulation of extraneous material on the surface of an object that alters the original design.

- AUXILIARY ATTACHMENTS: Materials or constructions fastened to an artifact with the evident aim of contributing strength and stability: e.g., cradles on panels to restrain warp, linings on fabrics, dowels and splines in three-dimensional objects of wood or stone.

- BLANCHING: Irregular, obtrusive, pale, or milky areas in paint or varnish; not superficial defect like BLOOM, but a scattering of light from microporosities or granulation in aged films.

- BLEEDING: The suffusion or spread of a color into adjacent materials, often caused by water or other solvents.

- BLOOM: Superficial surface cloudiness, white or blue white, caused by moisture penetrating a surface coating of varnish.

- CHECK: A rupture in wood along the grain and less than the length of the piece, usually caused by the accelerated drying of wood at the exposed end grain (cf. SPLIT). In plywood and in wood that has been too rapidly dried, checks may appear anywhere along the grain as a result of surface shrinkage.

- CHIP: See DENT.

- CLEAVAGE: A parallel disruption occurring as separation between or in any of the laminae of a stratified construction, so called because it runs parallel to the surface. When marked, it is visible as an elevation of contour and audible as

having a sonancy (the faint sound emitted on contact) different from that of coherent structures in the same artifact.

- COAPTATION: (aka REATTACHMENT, REJOINING, SETTING DOWN): a repair that involves fitting to each other parts that belonged together, such as broken pieces of sculpture and pottery; also recovery of altered shape. Evidence of such treatment may be clear.

- COCKLING: A broad wrinkle or system of wrinkles without creasing, usually referring to the conformation of paper or parchment.

- CORROSION: The chemical alteration of the surfaces of metals caused by agents in the environment or by reagents applied purposely. The color and texture of a metal surface may be changed without alteration of the form if there is no increase in the volume of the corrosion products, as in the gray green corrosion of Chinese bronzes, i.e., verdigris. If the volume of corrosion products is increased, hard nodules or crusts are formed on metal surfaces (cf. EFFLORESCENCE).

- CRACK: A fracture or fissure in any surface, especially a paint film. No loss is implied.

- CRACKLE: A perpendicular disruption of laminae. Crackle is common in old paintings and may also occur in lacquer, inlays, ceramic glazes, and other laminae. Two main types are recognized: (1) CREVICE, which usually has a narrow aperture and often penetrates more than one lamina, and (2) RIFT, which usually has relatively wide aperture and penetrates only a single lamina. Crackle occurs in complex patterns.

- DENT (aka DIG, GOUGE, CHIP): A defect in the surface, caused by a blow. A dent is simple concavity; a dig implies that some material has been displaced; a gouge, that material has been scooped out; a chip, that material has been broken away.

- DIG: See DENT

- DISCOLORATION: Changes of hue, value, or chroma, often having uneven distribution and plainly detrimental to the prevailing tone relations.

- DISHING: A defect in the stretcher caused by the torque of a drawn fabric. If the stretcher members are twisted out of a common plane, a shallow dihedral

angle is formed at the corners. Dishing is a common cause of corner wrinkles in stretched canvases (cf. DRAW).

- DISJOIN: A partial or complete separation of a join between two members of an object, as distinguished from a CRACK, TEAR, CHECK, or SPLIT.

- DRAW: A wrinkle or system of wrinkles in stretched fabric, radiating from corners or edges, usually caused by uneven tension. Corner draws may also be caused by various stretcher defects, especially DISHING.

- EFFLORESCENCE: Although efflorescence has a specific chemical meaning referring to the change from a crystalline salt to a powdery mass with loss of water, in recording condition the term is used more broadly to describe powdery or crystalline crusts resulting from other interactions on the surface of stone, plaster, ceramics, or metal.

- EMBRITTLEMENT: A perceptible decline of firm, pliant, and supple organic material toward an amorphous or even pulverized state; easily observed in fabrics, paper, and leather.

- EROSION: A degradation of the integument of an artifact with loss of outer portions in consequence of decay, EMBRITTLEMENT, ABRASION, or agitation of a weak bond.

- FADING: A discoloration with loss of chroma and usually with change to a higher value; a change of hue may also occur. It is evident particularly in textiles where parts, such as seams, have been protected from light.

- FLAKE (aka ISLAND): A portion of a lamina isolated and bound by fissures. Flakes may have profiles (sections) that are flat, rimmed, convex, or concave.

- FLAKING, FLAKED LOSS: LACUNAE left by sloughing of laminal FLAKES through a combination of CLEAVAGE and CRACKING.

- FOXING: Yellow or brown spots on paper, or occasionally pale spots on toned paper, which follow the degradation of cellulose by mold. Similar brown spots can be caused by the rusting of iron particles in the paper.

- GOUGE: See DENT.

- INSECT INVASION: Signs of the working of insects, such as tunnels or "Honeycombs" in wood or open gaps and holes in fabrics or paper. These are often clear on careful inspection.

- LACUNA (aka VUG): A void in the integument or enclosing layer of an artifact where design material has been lost.

- LINING: A repair that involves an auxiliary attachment applied to a planar artifact, such as textiles, paintings, and leatherwork. Linings can usually be noticed readily. (cf. MOUNT.)

- MOLD (aka MILDEW): A large group of small fungi, the vegatative structures of which invade many organic substances. Provided sufficient moisture is present, these structure or hyphae produce enzymes that dissolve or degrade the host material. This chemical action may leave wastes that stain the hosts, as, for example, FOXING marks on paper. On maturity, reproductive structures will appear on the surface of the host as visible and often colored, furry, or weblike excrescences. Until mature, mold or mildew may not be detectable except by the characteristic musty odor. Because mold requires moisture for growth, mold activity may usually be arrested by maintaining a dry environment, i.e., below 65 percent relative humidity.

- MOUNT: A repair that involves an auxiliary attachment to weakened artifact such as paper and textile fragments. With paper, attachment may have been by adhesion throughout. Textiles are usually sewn to their mounts. (Bases, pedestals, and removable frames are not considered to be mounts or parts of an artifact.)

- RUST: See CORROSION.

- SOIL: A general term denoting any material that dirties, sullies, or smirches an object.

  - DUST: Fine, dry particles of earth or pulverized matter generally distributed on surfaces.

  - SMEAR (aka FINGERPRINT): Types of local grime. Fingermark may refer to local BLOOM on varnish, or occasionally to an interruption in general varnish bloom.

- SPATTER (aka RUN, STREAM): Dried droplets or splashes of foreign material.

- STAIN: A discoloration that usually darkens the substance of an artifact in streaks or spots. Its appearance depends on the contacting material.

- SPLIT: A rupture running along the grain of a piece of wood from end to end, usually caused by exterior mechanical stress.

- TEAR: A break in fabric, paper, or other sheet material as a result of tension or torsion.

Appendix J: Resource Organizations

Note that the following list represents a sample of professional organizations and does not constitute an endorsement of any particular organization. This list is included as a public service; more current or specific information is generally available.

Conservation

American Institute for Conservation of Historic and Artistic Works
1400 Sixteenth Street. N. W., Suite 340
Washington, DC 20036
(202) 232-6636

National Institute for the Conservation of Cultural Property, Arts, and Industries
Bldg. 2225
Smithsonian Institution
Washington, DC 20560
(202) 357-1448

Historic Preservation

Technical Preservation Services Branch
Preservation Assistance Division
National Park Service
P.O. Box 37127
Washington, DC 20013-7127
(202) 343-9536

History/American Studies

American Association for State and Local History
172 Second Avenue, North, Suite 202
Nashville, TN 37201
(615) 255-2971

Archeology

Society for American Archaeology
808 Seventeenth Street, N.W.
Suite 200
Washington, DC 20006-3953
(202) 223-9774

Library/Archives

American Library Association
50 E. Huron Street
Chicago, IL 60611
(312) 944-6780

Society of American Archivists
600 S. Federal, Suite 504
Chicago, IL 60605
(312) 922-0140

Museums

American Association of Museums
1225 Eye St., N. W., Suite 200
Washington, DC 20005
(202) 289-1818

See also: American Association for State and Local History (AASLH), "Technical Leaflet #166, A Guide to Resource Organizations," *History News*, Vol 47, no. 1 (January/February 1992).

Appendix K: Security and Access Forms

Key Control Register and Inventory

Unit Dates

____

Key control number

1. ____________ 2. ____________

3. ____________ 4. ____________

Key issue and turn in

Key No.	Issued Date/hr.	Issued by Signature	Issued to Signature	Turned in Date/hr.	Rec'd by Signature

Request for access

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

Artifact, site, records: ______________________________

Requested by: Name: ______________________________

Address: ______________________________

Telephone ______________________________

Identification: ______________________________
(License or security number)

University or professional affiliation:

____

Reason for request: ______________________________
(Project name, for example)

I, ______________________, agree to abide by the rules and regulations of the Fort Drum ACF and to handle the artifacts and records with care.

____
Date

Request approved: _____ yes _____ no
(If request denied, comment below)

Curation staff signature: ______________________________

Comments: ______________________________

____

____

Appendix L: Collection Management Forms

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

DEED OF GIFT

Donor:

hereafter referred to as the "Owner" of the property described below, hereby donates, transfers, assigns, and delivers all to the Owner's right, title, and interest in and to the property described below, including any literary, auditory, or visual rights that the Owner may possess in and to said property, to Fort Drum as an unrestricted gift.

Dated this _____ day of ______________, _______

____
Signature of Owner

____
Signature of Owner

Description of property (Append photograph if possible):
Accession number (if assigned):
Cultural component: ____

Brief description of the nature of the object:
(Object identification, materials, decorative or structural features, distinguishing characteristics)

Brief description of the condition of the object on receipt:
(Note nature/location of any obvious damage or deterioration, sketch if necessary)

Received for Fort Drum by: ___________________________ _______________
Signature, Fort Drum HPO Date

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

DEED OF PURCHASE

Vendor:

hereafter referred to as the "Owner" of the property described below, hereby sells, transfers, assigns, and delivers all to the Owner's right, title, and interest in and to the property described below, including any literary, auditory, or visual rights that the Owner may possess in and to said property, to Fort Drum as an unrestricted sale.

Dated this _____ day of ______________, _______

____
Signature of Owner

____
Signature of Owner

Description of property (Append photograph if possible):
Accession number (if assigned):
HPP historic context/cultural affiliation: ______________________________

Brief description of the nature of the object:
(Object identification, materials, decorative or structural features, distinguishing characteristics)

Brief description of the condition of the object on receipt:
(Nature/location of any obvious damage or deterioration, sketch if needed)

Received for Fort Drum by: ____________________________ ______________
Signature, Fort Drum HPO Date

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

FOUND ON POST FORM
Finder:

hereafter referred to as the "Finder" of the property described below, hereby sells, transfers, assigns, and delivers all to the Finder's right, title, and interest in and to the property described below, including any literary, auditory, or visual rights that the Finder may possess in and to said property, to Fort Drum as an unrestricted gift.

Dated this _____ day of _______________, _______

____
Signature of Finder

Description of property (Append photograph if possible):
Accession number (if assigned): ____

Cultural component: ____
(relationship to Fort Drum)

Brief description of the nature of the object:
(Object identification, materials, decorative or structural features, distinguishing characteristics)

Brief description of the condition of the object on receipt: (Nature and location of any obvious damage or deterioration, sketch if needed)

Received for Fort Drum by: ______________________________ ______________
Signature, Fort Drum HPO Date

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

TEMPORARY CUSTODY RECEIPT FORM

____

Date

Received from: ____

Address__________________________ Telephone__________________

The following items as a loan to the Fort Drum ACF for a period
from___________________ to______________________

Description:
(type of object, dimensions, value if known, condition of the object, any identifying numbers, labels, or decoration, and photographs if available)

It is my understanding that the above items loaned to or curated at the Fort Drum Artifact Curation Facility are subject to the following conditions.

1. These objects were brought to Fort Drum for __________________, and are in no way part of the Fort Drum artifact collections.

2. These objects will be given the same care as objects in the collection but they will not be covered by Fort Drum insurance or compensation plans.

3. Owner hereby releases and holds harmless the United States Army from any and all claims, demands, suits, cause and/or causes of action for any loss or damage due to any cause unless the owner can demonstrate that care of the objects was not in

accordance with curation standards set out in the Fort Drum Artifact Curation Methodology.

4. Owner hereby grants Fort Drum Artifact Curation Facility permission to clean or fumigate the objects if curation personnel deem it necessary.

5. The receipt below must be retained by the owner and presented along with sufficient identification to reclaim the objects.

I agree to the above conditions of this loan:

Owner's signature — Date

Signature, Fort Drum HPO — Date

TO BE SIGNED ON RETURN OF THE ITEMS

Received from the Fort Drum Artifact Curation Facility, the above listed items.
On examination, I find the objects to be in a satisfactory condition.

Owner's signature — Date

Signature, Fort Drum HPO — Date

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

LOAN OUT AGREEMENT AND RECEIPT

Loaned to (name, position, institution, address, phone):

Loan Processing Date:
Authorized By:
Packed By:
Duration of Loan:
Date Sent:
Via:
Date Returned:
Inspected By:
Status of Object on Inspection:

Curation Facility Accession Number:
Description of Loan Material, Including Condition:

Reason for Borrowing Item:

The borrower agrees to assume full responsibility for all materials on loan from the Fort Drum Artifact Curation Facility in relation to loss or damage as long as the material is in the custody of the borrower. When requested, the borrower agrees to submit to a storage facility inspection by Fort Drum curation staff or will otherwise provide proof of adequate curatorial capability for the object(s). If requested, the borrower will also provide proof of insurance. The borrower understands that there is to be no cleaning, stabilization, or other treatment of the object without the express permission of the Fort Drum curation staff.

______________________________ ____

Signed Date

On receipt of the object(s), borrower will sign and return this form.

Received in good order by:

______________________________ ____

Signed Date

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

PHOTOGRAPHIC AND/OR IMAGE REPRODUCTION AUTHORIZATION

Borrower (Name, address, phone, institutional affiliation):

has been granted to photograph and/or reproduce the image described below:
Catalog Number:
Description or Copy:

for the purposes of:

The Borrower agrees to credit the Fort Drum ACF and the United States Army in any publication or presentation where the image is used. The Borrower agrees that any reproductions of this image will be true and accurate.

Borrower's signature   Date

On receipt of the object(s), borrower will sign and return this form.
Received in good order by:

Signature, Fort Drum HPO   Date

Appendix M: Field Curation Guidelines

These guidelines are based in part on the Field Guidelines set up by Louis Berger & Associates for the excavations at Fort Drum

Fort Drum Field Curation Guidelines

Curation begins when a site, artifact, or feature is discovered in the field. Careful field curation and site recording will save tremendous amounts of time, money, and effort in the laboratory and curation facility. It would be useful for members of archeological field crews to keep some basic curation principles in mind.

1. Ideal site recording would enable an archeologist to put a site back together exactly the way it was found. Make sure labels and numbers for objects match the site records. Also make sure that object identification labels or tags are placed with artifacts in a manner that minimizes the chance of separation.

2. Handle artifacts as little as possible. If brushing will suffice, do not wash.

3. Do not do anything to an artifact that cannot be undone.

4. Practice sound curation in the field. Shield artifacts from the elements until they can be brought to the laboratory.

5. Protect artifacts from each other. Unlike materials should not be bagged together regardless of provenience.

6. Secure and protect artifacts for transport. Provide padding if necessary. Use sturdy boxes and common sense when placing artifacts within those boxes.

Any federal curation facility or archeological program should set and document standards for field curation and artifact recovery. These standards clarify expectations to bidders on archeological contracts and should improve the conditions in which artifacts and records arrive at federal repositories. Curation facilities should describe

in detail the condition in which they will accept artifacts from contractors including expectations for labeling, packing, and storage using archival materials.

Field Procedures

Prehistoric Site Evaluation and Recordation

Prehistoric sites that are threatened with immediate or near-future destruction should be placed in a time stage site evaluation program. Stage I will assist in establishing the research potential of the site and will recover more detailed descriptive information. These are:

1. Review of the literature and unpublished information on similar sites to determine the cultural context and potential significance of the site.

2. Preparation of a site map

3. Shovel tests around principle features or structural elements. Generally this will be four transects around each feature in a cruciform pattern. Stage two testing may include excavation of test pits and features.

Site Recordation and Evaluation of Farmsteads and Historic Sites

Site location is perhaps the most important information recorded during the survey stage; accurate locational information is necessary so that another crew can find the site, and so that the type of construction impact can be determined.

At the survey level of effort, it is important to record sufficient information to complete a site survey form. Things to record about farmsteads during the initial survey:

1. Location relative to construction project (road centerline, etc.)

2. Topographic position (elevation, landform, etc)

3. Soils

4. Proximity to roads (distance and direction)

5. Visible features, including foundations, wells, fences, trash dumps, etc.

6. Rough sketch of entire site area, showing primary structures, roads, and other landmarks that may aid in relocating the site

7. Estimate of site size

8. Brief description of major features like masonry, concrete foundations, or wells

9. Assessment of site integrity and disturbance; has the site area been impacted by tracked vehicles, modern road cuts, fox holes, etc.?

10. Cultural material associated with the site, including items from shovel tests on transects through the site and material exposed on the ground surface

    Historic sites that are threatened with immediate or near-future destruction will be placed into a site evaluation program that includes two stages. Stage 1 includes a number of tasks that will assist in establishing the research potential of the site, as well as recovering more detailed descriptive information. These are:

11. Preliminary historical research to establish ownership of the site through time (chain of title)—done by historical staff

12. Preparation of scaled (1 in. to 10 ft) plans of principal structure foundations; descriptions of the primary structures

13. Preparation of a site plan (1 in. to 50 ft) showing the entire farmstead site complex, with principal structures, roads and other features

14. Shovel tests around the principal features/structural elements; generally this will be four transects around each feature/foundation in a cruciform pattern

15. Vegetation mapping—done by landscape specialist

Historical research will establish the ownership of the site over time, and may assist in determining the occupation dates for the site. Census information will also tell us who (names, ages, occupations) lived at the site at a given time, as well as information regarding farm holdings and levels of production.

Foundation plans and descriptions of typical farmstead features listed below should include construction materials (brick, limestone masonry, concrete, etc.) as well as construction details:

- Houses
- Construction Episodes
- Outshots & Ells
- Cellars
- Cisterns
- Barns
- Manure Gutters
- Milk Coolers
- Stratigraphy and Sheet Midden
- Artifact Deposits

Post Hole/Auger Test Record

The Post Hole/Auger Test Record form should be used for recording shovel test pits. Three shovel tests can be placed on one form, but if you are starting a new transect of shovel tests, start a new form. The form allows you to draw a simple profile of each shovel test, which should include depths of each level, Munsell soil color notation, soil texture, and a brief description of cultural material recovered. Indicate "NCM" for no cultural material, or "sterile" if no cultural material was recovered. Measurements should be metric.

Shovel tests are dug in natural levels, and each level is screened separately. The natural levels from shovel tests should be numbered (i.e., 1, 2, 3, etc.)

The last shovel test on a transect should be indicated as such on the form.

Artifact Cards, Bagging, and Preparation for Transport

All recovered artifacts are placed in plastic bags, if they are not too large. Each plastic bag of artifacts is then placed in a paper bag or a supportive box. The box must be adequate to support the weight of the artifacts it contains. If the box is not for permanent storage it need not be acid-free. Boxes should never be over packed and should contain moderate numbers and weights of artifacts. Boxes should be labeled with indelible ink, and scotch tape should never be used to fasten labels to boxes. All labeling and marking should be clear and concise.

An artifact card is placed within each plastic bag of artifacts. The card itself should also be placed within a small plastic bag to protect it from moisture. Artifact cards should be filled out in indelible black ink, together with the full site number (e.g.,

FDH-10-18 or A-045-11-0032), provenience (transect, shovel test, unit, level, strata, feature, etc.), the date and your initials. If the artifact is too large to fit in a bag, tie the card to the artifact with linen string. Artifacts, artifact bags, and labels should not be fastened with rubber bands and paper clips.

Artifacts are to be gently brushed clean, sufficient only for basic identification. Fragile artifacts and clearly significant artifacts like whole pipes should be gently placed in supportive packing to be sent to the lab.

The paper bags must include all of the same information on the card, as well as an indication of what class of material is in each bag (historic, prehistoric, bone, seed, etc.). Use sharpies to mark the paper bags. Once again, no tape, rubber bands, or paper clips. The crew chief will assign a catalog number to each paper bag. Paper bags are closed at the top with a triple fold. However, at the lab, each artifact will be given a specific designation for that catalog number 132.1, 132.2 and so on.

Field Notes Form

The field notes form is a general purpose form for narrative field notes and description. It can be used to expand notes or explanation of excavation techniques in test units, features or other site recordation. The back of the form may be used for sketches, additional notes, or drawings. It is preferable to use a lighter graph paper for sketches, however, since neither pen or pencil will show up well on the grid printed on the back of the field notes form. Always indicate the site, feature, unit, your name, date, etc. on the form. For sketches, always indicate scale, orientation of the drawing (magnetic or grid north), your initials, and date.

Feature Form

This is a general purpose form for recordation of features. While the form is not that well suited to historic features, a feature form should be completed for each feature identified at each site. UNIT/LEVEL forms should be used for feature excavation. The back of the FEATURE FORM contains a grid for sketches. Expand description and interpretation of features on a FIELD NOTES form.

Unit Form Summary

Before beginning excavation of a test unit, start to fill out a UNIT SUMMARY FORM. Indicate the reason why a unit was placed in the particular location, and the comments section should summarize the results of excavation as well as interpretive remarks. When a unit is completed, assemble all of the UNIT/LEVEL FORMS, FEATURE FORMS for that unit together with the UNIT SUMMARY FORM.

Unit/Level Form

This is the basic recordation form for excavation of test units. One is filled out for each level of a unit or for the levels within a feature. For test units, you should indicate strata as well as levels. Levels will run consecutively through the unit, and the strata are designated by letters. For example, if there are two levels in Stratum A. they are designated Str. A L.1 and Str. A L.2, while the first level in Stratum B is designated Str. B L. 3. For feature fills that are excavated in more than one level, begin with Level 1. Closing depths from one level should match the opening depths from the next level. For units larger that 3x3 ft, include a measurement of the center of the unit, as well as the corners. Comments should include the types of materials recovered, relative frequency and distribution of items, as well as significant observations.

Photo Record

The following field photography curation policy will be met by all archeologists working at Fort Drum:

1. Only one site may be recorded on a roll of film.

2. Black and white film for prints and proofs will be used whenever possible, because of the long term storage capability of black and white photographs.

3. Site photographs or negatives must be clearly labeled with the site number as well as with any special feature identification.

4. Photography journal records must be clearly marked with site numbers and special feature identification.

5. Photo journal entry numbers must match the image number on the roll of film.

A sample photo journal entry would be:

Site Number/Roll Number/Photograph Number/Feature, Artifact or Subject of the Image/Date

A045-11-0001/Roll 1/Picture 12/Barn Silo Foundation/6/25/89

The Fort Drum ACF will not accept photographs from contractors that are not clearly labeled with respect to the context in which they were taken.

Artifact Bag Catalog

This form is to be filled out on a daily basis by the site supervisor. It must list all bags collected in the field each day, and it is to be turned in with the artifacts. Begin catalog numbers at "1" for each site, and run consecutively. For sites where artifacts have already been collected during the survey or Stage 1 testing, consult with the lab to see what the next available catalog number is.

Discard Items

Not all cultural material recovered during excavation of shovel tests and test units should be saved. Discard items of obvious recent (post-1940) origin, including pop top cans and military items. Also, do not save brick fragments, coal, cinder, mortar, or nondiagnostic metal scrap. Items discarded or of which only a sample was saved should be noted on the shovel test or unit/level forms: (d) discarded; (s) sample saved. Consult with the site supervisor, curator, or facility archeologist in questionable situations.

Site Numbers

Variations in site numbering systems can create serious curatorial problems. At Fort Drum, temporary field numbers are indicated as "FDH-10-(number)." These are temporary numbers assigned by the survey crew until official state numbers are assigned. Always place these numbers on the part of the form that says "Field Number." Official state numbers are those that begin "A-045-11-(number)"; these are the only numbers that should be used on the Unit/Level, Feature, and Unit Summary forms where "Site Number" is indicated.

Always write out the full site number rather than referring to a site as "32" or "18," since this may lead to confusion as to whether you mean FDH-10-32 (a temporary field number) or A-045-11-0032 (an permanent site number).

Profile and Plan View Drawings

Profile drawings are made for one or more walls at the completion of each test unit. Consult with the site supervisor to determine which wall to profile or if a plan view is necessary. Always indicate which wall (north, south, east, or west) is shown in the drawing, elevation of the line level above or below datum, ground surface, and base of excavation (unit floor). Plan views should indicate magnetic or grid orientation and spot elevations.

Both profiles and plan views should contain a key to describe soil strata (texture and Munsell color notation), brick, mortar and other prominent items visible in the floor or wall. Use a separate sheet of graph paper when drawing complex or detained maps; leave ample margins and repeat the identifying information from level or feature forms (site, unit, wall, date, your initials, and orientation). The scale for plans and profiles should be comparable to 1 in. equals 10 ft.

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

Posthole/Auger Test Record

Project: ______________________________

Site: ______________________________

Recorder: ______________________________

Date: ______________________________

Screened: Yes______ No______ Mesh Size______

Procedures: Provide verbal and Munsell Descriptions of each stratum. Provide depth of each stratum. Provide brief description and counts of cultural materials within each stratum and their depth of occurrence within stratum.

Transect#	________	Transect#	________	Transect#	________
PH#	________	PH#	________	PH #	________

Comments: ______________________________

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Excavation Unit Summary

Project ________________ Site ______________ Recorder _________ Date _______

Unit Identification________________________Lot No. _________________________

Unit Coordinates and Size: ____

Datum Information: ____

Date Opened:___________ Date Completed:__________

Number of Levels Excavated:_________Maximum Depth Reached:__________

Factors considered in selecting location: _____________________________________

____

____

Reason for Termination: ____

____

Features identified in Unit:

____

____

____

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Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

Unit Level Form

Project ________________ Site ______________ Recorder _________ Date _______

Unit:___________________________ Level _____________________________________

Depth at Top: ____

Horizontal Dimensions: ____

NE:_______NW:______SE______SW______C:______

Stratum Definition (arbitrary or natural): _____________________________________

Soil Texture and Color:

____

Excavation Techniques and Controls:

____

____

Material Recovered:

Prehistoric:_______bags Faunal:_______bags
Historic:_________bags Floral:________bags
Other:___________bags (specify:) ____

Samples Taken (type and size): ____

Material Discarded or Sampled: ____

Comments: ____

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Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

Field Notes

Project: ______________________ Site: ________________ Recorder: ____________

Date: __________________ Feature: _______________ Unit: __________________

Field Notes:

Fort Drum Artifact Curation Facility
Fort Drum Environmental Division
BLDG T-4836
Fort Drum, New York 13602-5097

Artifact Bag Catalog

Project ______________ Site ____________ Recorder ________ Date ______

Catalog# Unit	Excavation Level#	Feature#	Area Description Comments-diagnostics	Dates Field/Lab
				/
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				/
				/
				/
				/

The Fort Drum Environmental Division
Fort Drum, New York 13602-5097

Photo Record

Site Number/Roll#/Photo#/Feature, Provenience, Subject of Image /Date

________/___/___/_________________________/__________

________/___/___/_________________________/__________

________/___/___/_________________________/__________

________/___/___/_________________________/__________

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Appendix N: Bylaws of the LeRay Mansion Preservation Corporation

CONSTITUTION AND BYLAWS
OF THE LERAY MANSION PRESERVATION CORPORATION

Article I - Name and Authority

Section 1: This corporation shall be called the "LeRay Mansion Preservation Corporation," hereinafter referred to as the "Corporation."

Section 2: The Corporation is established as a Type Three private organization under the provisions of AR 210-1 and its supplements, and exists on the military installation at the discretion of and written consent of the Installation Commander. Such consent shall be contingent on the following requirements and conditions as may be appropriate.

a. That programs and activities conducted do not prejudice or discredit the military service or other agencies of the United States Government.

b. That activities will not be conducted in the name of the Installation or any organization of the Army establishment.

c. That neither the Army nor a nonappropriated fund as defined in AR 210-1 and its supplements shall assert claim to the assets of the Corporations; nor shall the Army or any nonappropriated funds defined in AR 210-1.

d. That the Corporation will not engage in activities that are in conflict with authorized activities or nonappropriated funds defined in AR 210-1.

e. That the nature and authorized function of the Corporation together with provisions for proper disposition of residual assets and liabilities on dissolution will be established in the Constitution and Bylaws, charter, or articles of agreement.

f. That the Corporation is self-sustaining and receives no support, assistance, or facilities from the Army for from defined nonappropriated funds in AR 210-1 and its supplements except as provided in AR 210-1 and AR 420-80.

g. That the Installation Commander has authority to enforce compliance by the Corporation with conditions enumerated herein, to inquire into their activities and to withdraw his consent for its existence on this installation if deemed necessary in the interest of the Government.

h. The Corporation is and shall be a financially self-sustaining nongovernmental organization, and continued, established and operated by individuals acting exclusively outside the scope of any official capacity as officers, employees, or agents of the Government. The Corporation is not established nor operated pursuant to authority vested in the Army or any official thereof.

i. That in no event shall the United States Government be held liable for any indebtedness incurred by the members of this Corporation.

Article II - Purpose

This organization is founded for the purpose of coordinating the efforts to maintain the LeRay Mansion as an important landmark in the history of Jefferson county. While the building itself is owned by the Government of the United States of America, this organization will offer advice and counsel as to the restoration, renovation and decorating styles for its interior and exterior. It will also, to the extent permitted by law, offer services to the United States Government to maintain the interior and exterior of the mansion and may provide period pieces of furniture for display in the LeRay Mansion, and other services not inconsistent with law and regulation.

Article III - No Members

Section 1: This Corporation is a Type A not-for-profit corporation as defined in Section 201 of the New York State Not-For-Profit Corporation Law, with no members.

Article IV - Board of Directors

Section 1: Powers and Duties. The Board of Directors shall have general power to manage and control the affairs and property of the Corporation, and shall have full power, by majority vote, to adopt rules and regulations governing the action of the Board and shall have full and complete authority with respect to the distribution and payment of money received by the Corporation from time to time; except that the fundamental and basic purposes of the Corporation, as expressed in the Certificate of Incorporation, shall not hereby be amended or changed, and except further that the Board of Directors shall not permit any part of the net earnings or capital to insure to the benefit of any director of any director of the Corporation.

Section 2: Number, Qualifications, Election and Term of Office. The Board of Directors shall consist of nine (9) directors.

The directors shall be designated for a term of three (3) years, with three (3) terms expiring each year. Directors are not to serve more than three (3) consecutive terms for a total of nine (9) years, and officers not to exceed three (3) consecutive years. Directors will serve voluntarily. Discrimination of directors based on race, color, sex, or national origin will not be permitted.

Section 3: Organization. At each meeting of the Board of Directors, the President, or in his/her absence, the Vice-President, shall preside or in the absence of either of such officers, a Chairman chosen by a majority of the Directors present shall preside. The Secretary shall act as secretary of the Board of Directors. In the event the Secretary shall be absent from any meeting of the Board of Directors, the meeting shall select its secretary.

Section 4: Resignations and Removal of Directors.

a. Any Director of the Corporation may resign at any time by giving written notice to the President, or to the Secretary. Such resignation shall take effect at the time specified therein, or if no time be specified, then on delivery.

b. Any Director may be removed, with or without cause, by vote of a majority of the entire Board of Directors.

Section 5: Vacancies. In the case of removal or vacancy of a director, the board shall designate a new director to serve until the next annual meeting. Vacancies shall be filled by a majority vote of the board.

Section 6: Voting. At any meeting of the Board of Directors, each director present in person or by proxy shall be entitled to one (1) vote. Any action required to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if all members of the Board or of any committee, as the case may be, consent thereto in writing, and such consents are filed with the Minutes.

Section 7: Place and Form of Meeting. The Board of Directors may hold their meetings at such place or places within or without the State of New York as the board may from time to time determine.

Section 8: Annual Meeting. The Annual Meeting of the Board of Directors shall be held at such time in the month of May in each year as may be fixed by resolution of the Board of Directors for the purposes of receiving the annual report, electing officers, and transacting such other business as may properly come before the meeting. The date of the annual meeting shall be fixed at least twenty (20) days prior to such meeting.

Section 9: Regular Meeting. Regular meetings of the Board of Directors may be held at such times may be fixed from time to time by resolution of the Board of Directors. Notice of such meetings need not be given.

Section 10: Special Meetings. Special Meetings of the Board of Directors may be held whenever called by the President or by the Secretary on the demand of five members of the Board of Directors. Notice shall be given orally, by telegraph or by mail and shall state the purposes, time and place of the meeting. If notice is given orally, in person, or by telephone, it shall be given not less than one (1) day before the meeting; if it is given by telegraph or by mail, it shall be given not less than three (3) days before the meeting.

Section 11: Waivers of Notice. Notice of a meeting need not be given to any Director who submits a signed waiver of notice whether before or after the meeting, or who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to him.

Section 12: Quorum.

a. A majority of the entire Board of Directors shall constitute a quorum for the transaction of business.

b. A majority of the Directors present, whether or not a quorum is present, may adjourn any meeting to another time and place without notice to any Director. Notice of an adjourned meeting need not be given to any Director.

Article V - Officers

Section 1: Number. The officers of the Corporation shall be a President, Vice-President, a Treasurer, a Secretary and such other officers as the Board of Directors may in its discretion elect.

Section 2: Term of Office and Qualifications. Those officers whose titles are specifically mentioned in Section 1 of this Article V shall be elected by the Board of Directors at the annual meeting. Unless a shorter term is provided in the resolution of this board electing such officer, the term of office of each such officer shall extend to the next annual meeting and until his successor is elected or appointed and qualified. The officers of Secretary and Treasurer may be held by the same person. Only the President need be elected from among the Directors.

Section 3: Additional Officers. Additional officers may be elected for such period, have such authority and perform such duties, either in an administrative or subordinate capacity, as the Board of Directors may from time to time determine.

Section 4: Removal of Officers. Any officer may be removed by the Board of Directors with or without cause, at any time.

Section 5: Resignation. Any officer may resign at any time by giving written notice to the Board of Directors with our without cause, at any time.

Section 6: Vacancies. A vacancy in any office shall be filled by the Board of Directors.

Section 7: President. The President shall preside at all meetings of the Board of Directors at which he/she is present. the President shall act as chief executive officer of the Corporation and it shall be his/her duty to supervise generally the management of the affairs of the Corporation subject only to the supervision of the Board. The President shall also perform such other duties as may be assigned to him/her from time to time by the Board.

Section 8: Vice-President. In the absence or inability of the president to act, or if the office of President be vacant, the Vice-President shall perform the duties and exercise the powers of the President, subject to the right of the Board from time to time to extend or confine such powers and duties or to assign them to others. The Vice-President shall have such other powers and shall perform such other duties as may be assigned to him/her by the Board of Directors or the President.

Section 9: Treasurer. The Treasurer shall, if required by the Board of Directors, give a bond for the faithful discharge of his/her duties, in such sum and with such sureties as the Board of Directors shall require. He/She shall keep and maintain the books of account and shall have charge and custody of, and be responsible for, all funds and securities of the Corporation, and deposit all such funds in the name of and to the credit of the Corporation in such banks, trust companies, or other depositories as shall be selected by the Board of Directors. He shall also perform all other duties customarily incident to the office of Treasurer and such other duties as from time to time may be assigned to him/her by the Board of Directors.

Section 10: Secretary. It shall be the duty of the Secretary to act as secretary of all meetings of the Board of Directors, and to keep the minutes of all such meetings at which he/she shall so act in a proper book or books to be provided for that purpose; he/she shall see that all notices required to be given by the Corporation are duly given and served; he/she shall keep a current list of the Corporations's Directors and officers and their residence addresses; he/she shall be custodian of the seal of the Corporation and shall affix the seal, or cause it to be affixed, to all agreements, documents and other papers requiring the same. The Secretary shall have custody of the minute book containing the minutes of all meetings of directors, the Executive Committee, and other committees that may keep minutes, and of all other contracts and documents that are not in the custody of the Treasurer of the Corporation, or in the custody of some other person authorized by the Board of Directors to have such custody.

Section 11: Sureties and Bonds. In case the board shall so require, any officer or agent of the Corporation shall execute to the Corporation a bond in such sum and with such surety or sureties as the board may direct, conditioned on the faithful performance of his/her duties to the Corporation and including responsibility for negligence and for the accounting for all property, funds or securities of the Corporation that may come into his/her hands.

Article VI - Contracts, Checks, Drafts and Bank Accounts

Section 1: Execution of Contracts. The Board of Directors may authorize any officer or officers, agent or agents, in the name of and on behalf of the Corporation to enter into any contract or execute and deliver any instrument, and such authority may be general or confined to specific instances; but, unless so authorized by the Board of Directors, or expressly authorized by these Bylaws, no officer, agent, or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable pecuniarily or in any amount for any purpose.

Section 2: Loans. No loans shall be contracted on behalf of the Corporation unless specifically authorized by the Board of Directors.

Section 3: Checks, Drafts, Etc. All checks, drafts, and other orders for payment of money out of the funds of the Corporation, and all notes or other evidences of indebtedness of the Corporation, shall be signed by an officer of the Corporation as authorized by the Board of Directors.

Section 4: Deposits. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board of Directors may select.

Section 5: Fundraising. The revenue necessary to pursue the objective described in Article II shall be from revenue-producing activities entered into by the Corporation. All revenue-producing activities shall be coordinated with the Directorate of Personnel and Community Activities. Any on-post revenue-producing activity will be subject to the approval of the Directorate of Personnel and Community Activities.

Article VII - Office and Books

Section 1: Office. The office of the Corporation shall be at such place in the County of Jefferson, State of New York, as the Board of Directors may determine.

Section 2: Books and Records. There shall be kept at the office of the Corporation (1) correct and complete books and records of account, (2) minutes of the proceedings of the Board of Directors; (3) a current list of the Directors and officers of the Corporation and their residences addresses, and (4) a copy of these Bylaws.

Article VIII - Property

Section 1: Property. The property of this Corporation shall consist of such articles as may properly come into its possession. The property shall be accounted for by the Treasurer or in accordance with sound business practices using AR 215-1 and 215-5 as a guide.

Section 2: Indemnification of Directors and Officers. To the full extent authorized or permitted by law, the Corporation shall indemnify any person, made or threatened to be made, a party in any civil or criminal action or proceeding by reason of the fact that he/she testate or interstate is or was a director or officer of the Corporation. The

foregoing shall not obligate the Corporation to purchase directors' and officers' liability insurance, but should applicable law permit, the Corporation may purchase such insurance if authorized and approved by the Board of Directors.

Section 3: Loans to Directors and Officers. No loans, other than through the purchase of bonds, debentures, or similar obligations of the type customarily sold in public offerings, or through ordinary deposit of funds in a bank, shall be made by the Corporation to its directors or officers, or to any other corporation, firm, association, or other entity in which one or more of its directors or officers are directors or officers or hold a substantial financial interest.

Article X - Fiscal Year

Section 1: Fiscal Year. The fiscal year of the Corporation shall be the calendar year.

Article XI - Amendments

Section 1: Amendments. The Bylaws of the Corporation may be adopted, amended or repealed by the affirmative vote of a majority of the entire Board of Directors. If any By-law regulating an impending election of Directors is adopted, amended or repealed by the Board of Directors, there shall be set forth in the notice of the next meeting of Directors the Bylaws so adopted, amended or repealed, together with a concise statement of the changes made.

Article XII - Adoption

Section 1: All activities and functions of this Corporation shall be in accordance with applicable Army regulations and as approved by the Commanding General or his representative.

Section 2: This Constitution and Bylaws shall become effective on adoption in a duly constituted regular or special meeting of the directors, and a majority vote of the directors, and on approval of the Commanding General or his representative. This Constitution and Bylaws shall then supersede all previous constitutions and amendments except that it shall not affect officers elected nor specific agreements and contracts entered into under the terms of previous constitutions until such terms or agreements or contracts shall have reached their expiration dates.

Section 3: This Constitution and Bylaws was approved by the directors at a regular meeting held on ______________ in witness whereof the following officers affix their signature.

____

President

____

Vice-President

____

Secretary

DISTRIBUTION

Chief of Engineers
ATTN: CEHEC-IM-LH (2)
ATTN: CEHEC-IM-LP (2)
ATTN: CECG
ATTN: CERD-M
ATTN: CECC-P
ATTN: CERD-L
ATTN: CECW-P
ATTN: CECW-PR
ATTN: CEMP-E
ATTN: CEMP-C
ATTN: CECW-O
ATTN: CECW
ATTN: CERM
ATTN: CEMP
ATTN: CERD-C
ATTN: CEMP-M
ATTN: CEMP-R
ATTN: CERD-ZA
ATTN: DAEN-ZCE

US Army Engr District
ATTN: Library (40)

US Army Engr Division
ATTN: Library (13)

USA TACOM 48090
ATTN: AMSTA-XE

Defense Distribution Region East
ATTN: DDRE-WI 17070

US Army Materiel Command (AMC)
Alexandria, VA 22333-0001
ATTN: AMCEN-F
Installations: (19)

FORSCOM
Forts Gillem & McPherson 30330
ATTN: FCEN-CED-E
Installations: (23)

TRADOC
Fort Monroe 23651
ATTN: ATBO-G
Installations: (20)

Fort Belvoir 22060
ATTN: CECC-R 22060

CEWES 39180
ATTN: Library

CECRL 03755
ATTN: Library

USA AMCOM
ATTN: Facilities Engr 21719
ATTN: AMSMC-EH 61299

Military Traffic Mgmt Command
ATTN: MTEA-GB-EHP 07002
ATTN: MT-LOF 20315
ATTN: MTE-SU-FE 28461
ATTN: MTW-IE

Fort Leonard Wood 65473
ATTN: ATZT-DPW-EE

Military Dist of WASH
Fort McNair
ATTN: ANEN 20319

Defense Logistics Agency
ATTN: DLA-WI 22304

National Guard Bureau 20310
ATTN: NGB-ARI

US Military Academy 10996
ATTN: MAEN-A

Naval Facilities Engr Command
ATTN: Facilities Engr Command (8)
ATTN: Division Offices (11)
ATTN: Public Works Center (8)
ATTN: Naval Constr Battalion Ctr 93043
ATTN: Naval Civil Engr Service Center 93043

US Army HSC
Fort Sam Houston 78234
ATTN: HSLO-F
Fitzsimons Army Medical Ctr
ATTN: HSHG-DPW 80045

USA TSARCOM 63120
ATTN: STSAS-F

American Public Works Assoc. 64104-1806

US Army Envr Hygiene Agency
ATTN: HSHB-ME 21010

US Gov't Printing Office 20401
ATTN: Rec Sec/Deposit Sec (2)

Fort Bliss 79916
ATTN: ATZC-DOE

ACOS(IM)
ATTN: DAIM-ED-N

HQ , U.S. Army 10th Mountain Division
ATTN: AFZC-EH-E

HQ III COE and Fort Hood
ATTN: AFZF-DE-ENV

Defense Tech Info Center 22304
ATTN: DTIC-FAB (2)

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